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TomahawkKraftPaperReorganizationRetarded

Attorney C. F. Smith, Representing Committee, Appeals to Bondholders to Immediately Turn In Outstanding First Mortgage Bonds—Latest Balance Sheet Shows Company's Earning Ability Displaying Upward Trend—Receivership Would Be Illogical —Plan Calls for Sale of Old Company to New Company

[FROM OUR REGULAR CORRESPONDENT]

APPLETON, Wis., August 13, 1934.—Reorganization of the financial setup of the Tomahawk Kraft Paper Company, Tomahawk, Wis. has been retarded by the inability of the bondholders' protective committee to secure deposit of 90 per cent of the outstanding bonds. Thus far 68 per cent of the outstanding first mortgage 6 per cent bonds have been turned in. An appeal was issued last week by Attorney C. F. Smith, of Wausau, Wis. representing the committee, to bondholders to respond at once.

A copy of the latest balance sheet of the company has been sent the bondholders, showing that the company's earning ability is now on the upward trend, and pointing to the fact that the other alternative is receivership, and that such a step would be illogical.

The plan of reorganization calls for the sale of the old company to a new company of the same name. The new company will issue new bonds in lieu of the old bonds. All of the stock in the new company will be issued in the name of the old company but will be put in escrow, or pledged for payment of the new bonds to be issued. If the interest is not paid on the new bonds, according to the reorganization proposal, then all the stock of the new company is to be turned over to the bondholders. They will then own the new company without expense, delay and interference with operations, as would follow in the case of foreclosure or receivership.

Jack Pine for Kraft Paper Mills

Operations of the James A. Corcoran Company, of Webster, Wis. this year will mean delivery of 35,000 cords of jack pine to wrapping paper mills, with a gross volume of $215,000, according to James A. Corcoran, president. This company has become the largest operator in the production of jack pine in the state and in 1929 produced 56,000 cords valued at $600,000. The present crew numbers 450, and his monthly payroll is about $30,000. Only a few logging camps are being operated, and the remainder of the wood is being cut by farmers from their own lands as a means of extra income for them during depressed agricultural conditions. The minimum cut is 4 inch sticks eight feet long. The supply of jack pine in Wisconsin is still plentiful, and has developed into an important crop since jack pine was found adaptable for wrapping mills.

Mr. Corcoran began cutting jack pine 23 years ago in a small way, and his output gradually grew until he has the most extensive operations in this section. The wood is piled where it is easy of access for trucks.

Paper Chemistry Institute Expands

Lawrence Institute of Paper Chemistry at Appleton, Wis. will increase its enrollment of first year students this fall to eighteen, making the total enrollment of the school 35. The experience of the institution with its previous classes, and the demand in the industry for graduates led to the decision to admit more students. Most of the students are working in paper mills throughout the country this summer.

Sixteen applicants already have been approved. They are: William Foote, Lawrence College, Appleton, Wis.; W. Doyle Boggess, DePauw University; S. J. Dusinski, North Carolina State; Loren Forman, Iowa State; Eugene J. Kane, Massachusetts State College; T. Andrew Kauppi, Brown University; Charles H. Krebs, Montana State; Robert C. McKee, Grinnell; Martin J. Roberts, Pennsylvania State; John P. Weidner, University of Illinois; Eugene H. Williams, Jr., North Carolina State; John C. Wollwagge, Northwestern University; James J. Forsythe, Jr., Northwestern University; Samuel R. Sutphin, Yale; Kenneth W. Britt, Cornell, and Albert K. Roach, LaFayette College.

President Gets Fox River Rag Bond

When President Franklin D. Roosevelt visited Wisconsin last week, he was presented with a roll of government rag bond made by the Fox River Paper Company, Appleton, Wis. The presentation was made by Congressman M. K. Reilly, who boarded the special train at Eden, Wis. The paper, watermarked with the government seal, bore the inscription: "Dear Mr. President: This is a sample of government paper torn from our machine this morning. Fox River Paper Company."

News of the Industry

The last of six piers for four additional steel gates to be

(Continued on page 23)

Chicago Paper Market Conditions Irregular

While Local Mill Representatives Are More Optimistic, With Demand From Some Sections Pointing Upward, Paper Merchants Experience Continued Slackness—Various Grades of Fine Paper Fairly Active—Request for Kraft Wrapping Papers Restricted

[FROM OUR REGULAR CORRESPONDENT]

CHICAGO, Ill., August 13, 1934.—Slightly increased demand nationally but a continued slackening locally was evident in the weeks reports from Chicago jobbers. Retail sales in this area have experienced a pronounced recession during the past few weeks and this has told in those types of papers used in retail circles. The outlook, as expressed by local merchants, is none too good unless a marked upturn in confidence is experienced. Mill representatives were inclined to be more optimistic than last week as demand from certain corners of the territory pointed upward.

Representatives here feel that the summer slump will be more protracted than usual but there is plenty of evidence that the belief in the coming of inflation is prevalent. In general comments also indicate disappointment over the lack of final acceptance of revised code practices and the situation, from this standpoint, is not as good as it was a few weeks and months ago. The paper industry is, however, doing an exceptionally fine job along this line as compared with other industries.

Kraft papers found the local retail outlets fairly well dried up during the week although the mill situation retained about the same relative position as last week. Local resale markets were reported as slightly less firm. Ground wood and newsprint representatives continue to hope for readjustment in the newsprint situation in time for a genuine revival when the Fall period sets in. Books and covers compared favorably with any other lines, demand being a bit better in these as well as in the complete fine paper line. Improvement in bonds and ledgers extended away from the purely Chicago market to a certain extent. Paper board was virtually unchanged. The local waste market was reported dull.

NRA Labor Provisions Opposed

Immediate repeal of section 7-A of the recovery act is urged by R. E. Wantz, president of the Rockford Fibre Container Company and a prominent member of this division of the paper industry. Mr. Wantz, speaking as head of the Illinois Manufacturers Association, was widely quoted this week as saying that "under the labor provisions of the NRA has been created a Frankenstein monster that not only retards business recovery but threatens to plunge this country into civil war." Mr. Wantz asks repeal of section 7-A as essential to public interest and he recommends that members of congress study the unrest and strife prevailing in industrial communities.

"Section 7-A," says the container executive, "was insisted upon by organized labor. Its authority is designed to assume control of every industrial plant and business enterprise in the United States and it has been used for that purpose, backed by labor and the NRA boards. It has not been employed to better working conditions but to create a monopoly of labor, to acquire the might and power of tyrannous organization as relentless and dangerous as some of the armed factions that have wrested the liberties of people of several foreign nations."

Mr. Wantz credits 7-A with being responsible for the labor warfare resulting in martial law in Minneapolis and for the state of anarchy in Kohler, Wisconsin. "Forty five million unorganized men and women in this country would like to work. They prefer work to a walk-out. They are being coerced, harassed, mistreated and assaulted economically by the few agitators who thrive on the excitement of the picket line and loot during a general strike. Ninety per cent of the employers want to be left alone and free to settle their own grievances. Section 7-A is a menace to the peace of the country. It encourages general strikes. It prevents business recovery. It should never have been enacted. The first duty of Congress, when it reconvenes should be to restore industrial peace by the immediate elimination of 7-A from the recovery act and thus restoring that right of individualism on which the greatest nation of all time has been built."

Demand for Sisalkraft Expands

"It's an ill wind that blows nobody good," says the Sisalkraft Company of Chicago, which has found a splendid market for its product because of extreme drought conditions. "These conditions," say J. W. Austin, advertising manager of Sisalkraft, "have combined to make the storage of large quantities of silage desirable wherever dairy cattle and other livestock must be fed. Farmers must store a lot of silage using the economical temporary silos available for that purpose. Here, then, is one market usually good this year—the sale of Sisalkraft for satisfactory cribbing lining."

The only difficulty experienced in thousands of cases, says the Sisalkraft Company, has been the rotting of paper caused by the fungi in the silage. Last year treated Sisalkraft was introduced and proved its ability to resist even this severe test. "Sisalkraft," says the company, "has the strength to stand the strains due to settling and treatment to resist the attack of fungi. Thus the shortage of hay and other forage crops; the damage done to small grains; the drouth and the chinch bug have all combined to make it necessary for the farmer to insure winter feed through silage. The Sisalkraft product," says Mr. Austin, "makes temporary silos practicable and is thus most economically sound and fills a real need at a time when economy must be the first requisite of the farmer's plans."

News of the Trade

Joe Pirie, code authority for the industry in this locality, was unable to fulfill his engagement as the speaker at the Monday, August 6 meeting of the Salesmen's Association of the Paper Industry, due to an unfortunate accident which temporarily deprived him of the use of his hand. He is expected to appear before the association in the near future to deliver an important message on code enforcement in this territory.

The Knollwood Country Club, a 6800 yard long championship golf course, is to be the site of the next golf event of the Middle West Division of the Salesmen's Association of the Paper Industry. The outing will be held on Friday, August 17. Concurrent with the announcement of the August event comes the news from R. R. Cook, golf chairman, that the final tournament will be held at the Flossmoor Country Club on September 27 following the

National Paper Trade Association meeting at the Stevens Hotel on September 24, 25 and 26. This news will be of interest to all mill executives, jobbers, convertors and others who can now lay their plans for the Fall NPTA session to include this big golf outing to which they are cordially invited by the salesmen. The Knollwood outing is to feature a Flag Tournament along with the splendid swimming pool facilities provided by the club.

"Versatile" is the description given Birmingham & Prosser of Princess Enamel Book, as described in their latest folder to the Chicago trade. "It's not hard to find a good, high priced enamel but to be good and also low-priced—to take even the most difficult color work beautifully, to feel well and to fold satisfactorily—calls for unusual versatility." Princess Enamel book is regularly made in all standard weights and sizes and in White and India with Ivory and other colors available on special order. The four page specimen folder announcing these unusual qualities of Princess Book is printed on 80 lb. White Enamel Book.

Containing sincere tributes to efficiency from the Hutchinson Brothers Leather Company and the Strobridge Lithographing Company, Redemption Bond's letterhead continues from the offices of the Swigart Paper Company in Chicago. The present is number four in the "Letterhead Parade" dealing with interesting letterheads and their conception. The "Parade" really begins with Whiting-Plover Paper Company, manufacturers. It gets a splendid reception in Chicago according to Swigart.

Demand Lags in Indianapolis

[FROM OUR REGULAR CORRESPONDENT]

INDIANAPOLIS, Ind., August 13, 1934.—After a week of fair selling, due to more temperate weather largely, the trade suffered another week of stifling temperatures last week and trade lagged in most lines, except summer specialties. Jobbers in summer specialties have been doing an enormous business this summer, perhaps the largest since the big drop came, though no figures of accuracy are available. While other lines were not moving so actively, there is no pessimism on the part of the trade.

It became known last week that several of the larger printing companies of the state already have large volumes of business booked for the fall season. Most of this direct-by-mail advertising work is in colors and some of it is far more pretentious and voluminous than has been the rule for some years past. The jobbers of fine paper are looking forward to this business. Already several have been asked to quote figures on good volumes. Dealers are beginning to purchase their stocks in all parts of the state against the opening of schools. This trade is not such a large percentage of the business, but for nine months it is steady.

Demand for newsprint continues good. Prices are holding steady, but this is true of virtually the entire paper line. Lineage in Indiana papers has held up far better this summer than for any during the last four. Some slump is expected at this time of the year, since it is between seasons for the large department stores and others fail to advertise because so many are away on their vacations. But this year the slump has not been so marked. It is predicted fall will see some real advertising lineage.

The container factories in Indiana are working slightly better than they have been. There is some effort now to build up small warehouse stocks against what is certain to be a good demand for fall. This is something that has not been done for a long time. Kraft is holding its own and prices are firm.

Paper stock men report some mill inquiries, but the volume of mill buying is not so good. Prices are fair.

Boston Paper Market Quiet

[FROM OUR REGULAR CORRESPONDENT]

BOSTON, Mass., August 13, 1934.—"August quiet" prevails in the Boston paper market, although a certain amount of business was transacted during the last week, a fairly good volume, considering the season. Fine papers were no quieter than usual, as a whole, and in a few cases sales were a little better than the previous week. The demand for wrapping paper showed a tendency to improve slightly, perhaps, for standard lines. Box boards were generally slow.

Most grades of paper stock continued quiet, although a few were more active than others. Old newspapers were in good demand and strong at .35 @ .37½. There was a fair demand for mixed papers in which an upward revision of prices is expected shortly. The value of No. 1 mixed papers was firm at .15 @ .20. Corrugated boxes moved well at current figures, .32½ @ .35. In bagging, foreign gunny No. 1 sold at 1.50, although dealers feel they should receive 1.60. The previous quotation for this grade was 1.40 @ 1.45. Southern mills offered 1.35 for foreign bagging. Distress lots of domestic gunny No. 1 were sold at 1.28, but dealers are asking 1.50. In domestic rags, the light demand was even less in certain grades of shirt cuttings. New white No. 1 declined to .05 @ .06 from .06 @ .06½, new white No. 2 to .03½ @ .04 from .04 @ .04½, and new unbleached to .05½ @ .06 from .06½ @ .07.

Many small orders were received for twine. Reductions have been made in the price of hard fiber twine "to meet chiselers." Both manufacturers and jobbers have reduced prices two cents a pound.

Uphold Thomassen Process Patent

Judge Nevin of the United States District Court, southern district of Ohio, has rendered a decision in the suit of the Centrifugal Engineering & Patents Corporation against the Black-Clawson Company. This decision upholds as valid and infringed the Thomassen Process Patent No. 1,536,988 owned by the plantiff which patent was in suit against the Shartle Brothers Division of the Black-Clawson Company, manufacturers of the so-called Miami Centrap used for cleaning paper pulp. The Thomassen patent is a patent for a process for freeing paper pulp from impurities and covers the use of machines in accordance therewith. The Black-Clawson Company are adjudged a contributory infringer for supplying machines to paper mills for use as claimed in the patent.

The Centrifugal Engineering & Patents Corporation has licensed the Bird Machine Company of South Walpole, Massachusetts and the Tolhurst Machine Works, Inc. of Troy, New York to manufacture and sell centrifugal machines for use under the Thomassen patents and various other patents which it owns.

Paper Dealers to Meet in Chicago Sept. 24

The Fall Convention of The National Paper Trade Association will be held at the Stevens Hotel, Chicago, Monday, Tuesday, and Wednesday, September 24-26.

In view of code procedure and very vital matters demanding the attention of the trade on which consultation and latest information are urgently needed, it is believed that a very large attendance may be expected.

The Stevens Hotel has promised accommodations to meet requirements, but in view of probable congestion incident to the Century of Progress Exposition still going on, it is important that reservations should be made well in advance in order to assure desired accommodations.

Canadian Paper Box Industry Steadily Improving

Secretary-Manager C. V. Hodder, of Canadian Paper Box Manufacturers Association, Reports Slight Increase In Sales Volume of Set-Up Boxes Over Last Year—Demand for Corrugated Containers Also Expanding—Exportation of Paper Board Greater

[FROM OUR REGULAR CORRESPONDENT]

TORONTO, Ont., August 13,1934.—Commenting on improved conditions in the paper box industry in Canada, C. V. Hodder, secretary-manager of the Canadian Paper Box Manufacturers' Association, Toronto, has this to say:

"Total sale of set-up boxes have slightly increased over last year, although the situation in folding cartons still seems somewhat problematical, with the tendency toward a slight increase. The importations of both set-up boxes and cartons show a decrease of almost 33 per cent in value. There has also been an increase in corrugated container sales and a decrease in the importation of board, with a slight increase in sales. Exportations of board are also reported to be greater this year than last.

"Competition, if anything, is keener in all lines. Waste paper has decreased in value and there is an excessive supply. The volume of sales of board in the United States on all grades seems to be showing a downward tendency and the mill operation seems to be equivalent to around 50 per cent of capacity. It is somewhat difficult then to gauge the situation across the line inasmuch as it is quite evident that the law of supply and demand is being somewhat controlled, particularly in view of the fact that the price of board shows a tendency to stiffen temporarily.

"On the whole it seems to be evident that conditions generally in Canada have improved and the paper box industry has participated in the improved situation. The tendency to regard increased prices with temerity is undoubtedly a great factor in the present situation. There is no question but that raw material has been increased to the box manufacturer, who, however, seems to be either reluctant or afraid to pass such increases on to the ultimate consumer in full. In the larger centres, too, there are more companies operating than there were last year, and the newer companies are, for the most part, small, and many of them have had the idea that in order to get a start they must bring prices to the minimum.

"Public opinion today is very much inclined to favor stable markets if the stabilization of such markets is being effected without undue cost to the ultimate consumer. There is no question but that the box industry has never been in a position where the profits have been excessive, and, if anything, the profits of today are not sufficient to encourage capital. The time must come, then, and come speedily, when the box maker must obtain a higher return on his investment if he is to be successful. He may remain in business without such higher profit for a period of time, but it will be an unprofitable business."

Notes and Jottings of the Trade

Westminster Paper Company, Ltd, operating a specialty plant at New Westminster, is reported to be showing further earnings improvement this year. The first half of the fiscal year which ended July 31 showed gains over the like period of the previous year and this improvement is being maintained. In addition to meeting all charges on a $300,000 issue of 6½ per cent first mortgage bonds, the company has been paying 4 per cent per annum in dividends on 47,789 common shares since October 1, 1932. The company, as at July 31, 1933, was in good working capital position with $169,003 in current assets and $59,885 in current liabilities, leaving net working capital at $109,-118.

Twenty carloads of sulphur were burned at the sulphur storage bins of the Spruce Falls Power and Paper Company plant at Kapuskasing, Ont., recently. Spontaneous combustion was believed responsible for the outbreak which started early in the morning. The flames were prevented from reaching the main section of the mill but as it is the loss ran up into the thousands.

With the pulpwood season about at an end, operators in New Brunswick estimate their sales this year will be the largest since 1932. Crews of workmen engaged in the business this season are about double those of last year and this has done much toward relieving the unemployment situation in the province. The total cut for 1934 is estimated at about 200,000 cords.

Contracts for cutting 50,000 cords of pulpwood in Manitoba by settlers during the coming season have been awarded by the Manitoba Pulp and Paper Company. The contracts will involve an expenditure of about $500,000 and prices paid settlers will be on an average of $1.00 per cord higher than that paid last year, when contracts were given for 20,000 cords. It is reported that there is a possibility of the newsprint mill of the Manitoba Pulp and Paper Company., which is controlled by the Abitibi corporation, resuming activities next year.

Fire swept through the pulpmill of the McLeod Pulp Company, near Liverpool, N. S., destroying it completely The mill, built thirty years ago and at one time one of the largest in Nova Scotia, had been closed the last few years. The cause of the fire is unknown.

The Thompson and Heyland Lumber Company, Ltd., Toronto, who are extensive purchasers of pulpwood, report that the cut in Northern Ontario this season will be less than it was last, while pulpwood harvested in Quebec will be greater. The reason for the decreased amount in Ontario is owing to the scarcity of labor and the brevity of the peeling season. Most of the men who otherwise work in the bush obtained employment on the roads and were not released until too late to get into the pulpwood operations. The Thompson and Heyland Company shipped 421 cars and three boat loads of pulpwood during June, which was the largest of any corresponding month in the last five years. The total shipped in June reached 10,000 cords.

S. J. Robinson, of B. J. Ball (New Zealand) Ltd., at Auckland, Ltd., paper distributors, has returned after visiting a number of the paper mills throughout Canada.

George W. Pauline, head of Alliance Paper Mills, Ltd., head office Toronto, has returned to his desk after an enjoyable holiday at Windermere, Muskoka.

Rochester Paper Co. Improves Offices

During the past thirty days the Rochester Paper Company of Rochester, Mich., has been undergoing extensive changes to its executive offices. Another floor has been added directly above the space already occupied, making possible almost double the amount of space previously available.

Philadelphia Paper Market Continues Quiet

Paper Specialties Generally Moving Into Consumption In Greater Volume Than Various Standard Grades—Local Paper Merchants Anticipate Livelier Trading With Approach of Autumn—Slump In Paper Stock Still Prevails, Although Future Outlook Is Brighter

[FROM OUR REGULAR CORRESPONDENT]

PHILADELPHIA, Pa., August 13, 1934.—The history of the summer business in the paper trade here is one of consistent seasonal dullness, but the paper merchants, for the most part, feel very cheerful over what is to come, with the Fall season only a few weeks away. Specialty lines have been moving to a greater degree than standard lines, although, as we said in these columns a week or so ago, it is just day-to-day business, and what the trade is most concerned about now is something on which to base long-range business plans.

In the waste paper market, the slump still prevails, although the packers are looking forward with great expectancy to the advent of Fall season, because they believe that it will definitely determine the trend of the market and be a guide to the future.

Bare Announces New Mill Brands

The D. M. Bare Paper Company, Roaring Spring, Pa., has announced a new mill brand line of papers, including book, bond and mimeograph papers. The new line is known as Roaring Spring Papers, and is named in memory of three famous authors, Geoffrey Chaucer, John Ruskin and Alfred Lord Tennyson.

The book papers are manufactured in three finishes, English Finish, Eggshell Test and Super. Chaucer Book represents the very best grade, Ruskin Book is in the middle price range and Tennyson Book in the lower price bracket. These papers represent the very finest type of uncoated book papers in their respective price classes for printing books, periodicals, advertising literature, catalogs and booklets.

Favorable Location of Mill

Of interest to distributors is the location of the D. M. Bare Paper Company in the town of Roaring Spring, Pa., in a valley in the Appalachian foothills, at a pivotal point in relation to New England, Middle Atlantic and Midwestern cities. In the very heart of this busy but unhurried community is a lake covering about an acre of ground. So pure is the water in this lake that from the downtown sidewalk which crosses its lower end may be seen many thriving rainbow and speckled trout.

A water so pure brook trout can live for years in it is an important fact, because 500 pounds of pure water are required in the manufacture of every pound of finished fine paper. D. M. Bare Company has one of the most picturesque, purest and unfailing sources of water for the manufacture of fine papers in the world today.

Established Seventy Years Ago

The D. M. Bare Paper Company has entered its seventieth year of paper making progress, the mill having been established by D. M. Bare in 1865. It was the first mill to be established in Central Pennsylvania. Mr. Bare lived to see the production of his mill increased to thirty-five times its original capacity.

Paper House to Handle Crane Papers

As a fitting means of celebrating its twentieth birthday, The Paper House of Pennsylvania announces its appointment to handle the complete line of paper made by Crane & Co., Inc., of Dalton, Mass. The Association of The Paper House with the 133-year-old firm of Crane adds the finest kind of paper to its lines, and this complete service is cordially offered their clients.

Considine Attends Regional Meeting

During the week Norbert A. Considine, president of The Paper House of Pennsylvania and member of the Regional Committee, will be in attendance at the regular monthly meeting of this committee, which will be held in New York.

T. H. B. Smythe Vacationing in Maine

T. H. B. Smythe, president of J. L. N. Smythe Company and also president of The Paper Trade Association of Philadelphia, leaves this week for Blue Hill, Maine, to be away until after Labor Day.

Boston Paper Trade Happenings

[FROM OUR REGULAR CORRESPONDENT]

BOSTON, Mass., August 13, 1934.—A luncheon meeting of the Wrapping Paper Division of the New England Paper Merchants Association was held at the Boston Chamber of Commerce Tuesday, at which toilet tissues were discussed. President F. Bendel Tracy presided.

The United States Envelope Company has issued a sales manual for printers which is being distributed through Boston paper merchants. The manual, containing 32 pages, includes printing price schedules; 34 standard envelope styles, illustrated with diagrams; descriptions of "Guaranteed Envelopes," a list of standard sizes, and "How to Secure Envelope Sales Aid." The descriptions include Columbian White Wove Envelopes, "U. S. E. Bond, Booklet—Open Side Postage Saver, Mono-Outlook, and Columbian Clasp.

E. M. Davenport, treasurer of Spaulding & Tewksbury Company, box board dealers, is passing his vacation during August at Southwest Harbor, Me.

Chester M. Edmond, a member of the sales staff of Baird & Bartlett Company, box board dealers, is passing a two weeks' vacation at Boar's Head, N. H., accompanied by his family.

Among those who called on the trade last week were Charles W. Townsend, manager of the Logan, Swift & Brigham Envelope Company Division of the United States Envelope Company, Worcester, Mass., and S. C. Knode, vice-president of the Albemarle Paper Manufacturing Company, Richmond, Va.

Col. Howard Ill in Chicago

DAYTON, Ohio, August 13, 1934.—Information from Chicago is to the effect that Colonel Maxwell Howard, who is at the head of the Aetna Paper Company, Dayton, and large mills in Urbana and Franklin, has been seriously ill at a hospital in that city, from the effects of sunstroke.

Colonel Howard is said to have been stricken when at the Hawthorne race tracks. He has been the owner of a string of horses for a number of years and is well known in turf circles. However, his racing enterprise has been more of a diversion to him and he has never lost any time from his duties as president of the various corporations he heads in following the race programs.

Because Howell Howard, his son, made a hurried trip by plane from New York to Chicago, on his arrival from Europe, it was reported in Dayton that his condition was serious. Fortunately, this was found to be erroneous. He expects to be back at his desk in Urbana within a few days, it is stated here.

TAPPI To Visit West Coast Mills

An important feature of the fall meeting of the Technical Association of the Pulp and Paper Industry will be the opportunity presented to visit the famous pulp and paper mills of the Northwest.

The meeting headquarters will be at the Multnomah Hotel, Portland, Ore., and the meeting dates will be September 10 to 13. Special TAPPI trains will leave Chicago on September 5. Railroad reservations should be made with G. S. Brazeau, Weyerhaeuser Timber Company, 307 N. Michigan Boulevard, Chicago, Ill.

A brief sketch of some of the mills to be visited follows:

Soundview Pulp Co.

One of the plants which members attending the Technical Association meeting in Portland, will want to see, is that of the Soundview Pulp Company, at Everett, Wash. This plant produces high grade bleached sulphite and has a capacity of 175 tons per day. It is one of the modern Western Mills.

The plant began operating in 1930 and is self-contained as regards chip preparing facilities, power plant, etc. Its fresh water supply is obtained from the City of Everett and the water is of the same quality as that supplied for domestic purposes.

Pulp shipments are made via rail and or water since the plant is served by the Great Northern Railway Company, Northern Pacific and Chicago Milwaukee as well as by intercoastal and foreign steamers. The dock facilities are ample to load two steamers at one time and the depth of water at low tide is in excess of 30 ft.

The timber reserves tributary to Everett assure the company of a supply of wood for many years to come.

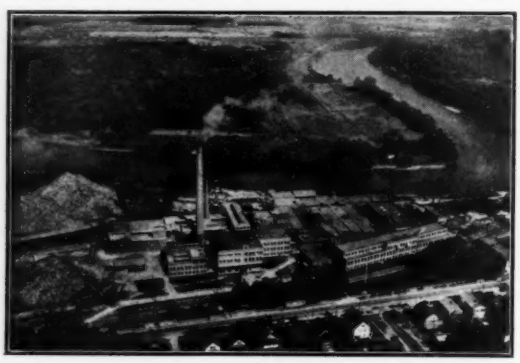
Everett is 32 miles from Seattle, 232 miles from Portland and may be reached by auto, train or air.

Shaffer Pulp Co.

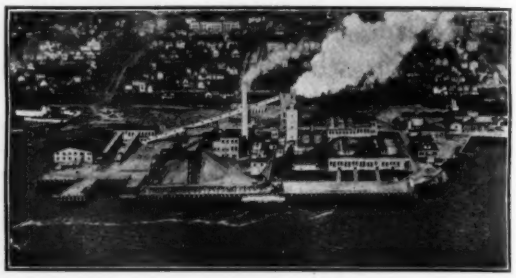
The Shaffer Pulp Company is located at Tacoma, Wash., on tidewater 3 miles from center of city. 166 miles from Portland, Oregon. It manufactures only unbleached sulphite, strong and easy bleaching, in the quantity of 65 tons per day.

It uses selected logs, cutting entire log through its sawmill into pulp; no outside waste wood used, nor even pulpwood. It is under supervision of A. D. (Dad) Wood and boasts of having cleanest unbleached in the country as the mill is small enough to have "Dad's" daily personal inspection.

The mill is located on Commencement Bay in Tacoma



EVERETT PULP & PAPER CO.



SOUNDVIEW PULP CO.

where logs from all sections of Cascade Range must be dumped; also within easy towing distance of all points around Olympia and from Olympic Peninsula. Several billions of feet of pulp making timber standing within 90 miles of the city, makes supply of raw material for this pulp mill inexhaustible.

The mill has two Willamette digesters, Jensen acid system, plenty of flat screens, a Kamyr wet machine and two Fidalgo dryers; all the usual guff may be peddled about the equipment, but the fact is the human equation is right, been operating since 1928.

Everett Pulp and Paper Co.

The Everett Pulp and Paper Company is located at Everett, Wash., near Seattle and has a capacity of 70 tons per day of book paper, including M. F. and S. C. book, eggshell, offset, super rotogravure, label, posters, bonds and mimeograph.

Fibrous raw materials consist of fir and cottonwood. Steam is generated from fuel consisting of mill refuse. Electric power is purchased from the local power company who generates it from water power.

The officers of the company are William Howarth, president, A. H. B. Jordan, vice-president, W. J. Pilz, secretary and manager, James G. Ramsay, superintendent and J. L. Murray, sales manager.

A hearty invitation is extended to TAPPI members to visit the mill of the Everett Pulp and Paper Company, one of TAPPI'S corporate members.

Powell River Co.

Eighty miles north of Vancouver, on the inlet gashed coast line of British Columbia, the tall chimneys and terraced homes of Powell River greet the visitor. In and about the townsite is grouped a population of 5000 people, all of whom are dependent for subsistence on the operation of the Canadian plant. Powell River is located amid picturesque surroundings overlooking the Malaspina Straits, the Gulf of Georgia and the Gulf Islands, famous for their scenic beauty.

EARLY HISTORY

The Powell River Company pioneered the newsprint industry in British Columbia. In May 1912 the first roll of paper ever manufactured within the borders of the Canadian province was carried down the Gulf of Georgia. To the vision and initiative of two of America's pioneer lumbermen, the late Dwight F. Brooks and the late Michael J. Scanlon, the present successful newsprint plant at Powell River owes its origin. They first saw the possibilities of Powell River as a location for a newsprint mill, while engaged in lumbering operations at Stillwater, B. C.

in 1909. In the fall of 1910, the vanguard of the construction army appeared on the scene. By May, 1912, two newsprint machines, with a capacity of 100 tons a day were in operation, Successive expansion periods have increased the number of machines to seven, with a daily capacity of 650 tons of newsprint. Today the plant is the leading newsprint producer on the Pacific Coast and ranks among the first four largest individual newsprint mills in the world.

The Paper Machine

The daily tonnage of the Powell River plant is produced by seven newsprint machines of the following sizes and capacities:

1—150″	machine,	at	670′	per	minute,	installed in	1912
1—156″	"	"	670′	"	"	" "	1912
2—184″	"	"	670′	"	"	" "	1914
2—234″	"	"	1100′	"	"	" "	1926
1—226″	"	designed for speeds up to 1400′, installed in 1930.					

The latest machine, Number 7, embodies several novel improvements in paper machine design. Many features on the machine have been designed and installed by the plant engineering and operating staffs and appear on no other machine now in operation.

The sulphite plant equipment consists of six digesters of the following capacities: Three 10 ton, two 16 ton, one 17 ton. The Company utilize the Jensen tower system in the manufacture of sulphite, and have their own Lime Rock quarries located a few miles from the plant. The lime rock is of the highest grade, and may be conveniently and economically mined.

Steam Plant Equipment

The entire plant is of recent modern construction, equipped to meet any emergency that may arise from shortage of electric power, or conversely, to economically utilize surplus hydro electric power. The steam plant equipment consists of:

12—500 Boiler h.p. B. & W. boilers, operating at 175 pounds pressure and up to 200 per cent of rating or capable of producing 34,500 pounds of steam per hour each.
1—950 Boiler h.p. B. & W. boiler, operating at 175 pounds pressure and up to 450 per cent of rating or capable of producing nearly 150,000 pounds of steam per hour.

For the utilization of surplus hydro electric power, two electric boilers, one of 6000 k.w., (600 boiler H.P.) the other 5000 k.w., (500 boiler h.p.) are maintained.

Four auxiliary turbo generators, two of 3380 Kva and two of 1500 Kva are maintained against possible temporary partial loss of hydro electric power.

Grinder Room Equipment

Seventy grinder machines are now installed in the Powell River plant. Sixteen of these were added in 1930 during the last plant extension, when a new grinder room was erected. These sixteen are all electrically driven; they are grouped in lines of six each, each line being driven by a 3600 h.p. 273 r.p.m. synchronous motor. The remaining fifty-four machines are direct connected to water turbines.

Hydro Electric Development

A ready supply of available water power has permitted the steady expansion of the Powell River plant during its twenty years of existence. Two hydro developments combine to provide the 72,000 h.p. available for the manufacture of paper at Powell River. In 1926 Powell Lake, whose narrow outlet extends almost into the heart of the townsite, was developed to its maximum of 50,000 h.p. The water is carried by direct penstock connection to the grinder and generator rooms. The total penstock length is 1600 feet. In 1929 a new development was initiated at Lois River, thirteen miles south of Powell River. An additional 22,000 h.p. was made available through the development of the Lois River site. High tension wires carry the power direct from the power house at Stillwater to the mills. Plans have been prepared for the complete development of this watershed, which will, when market conditions justify, be developed to its maximum of 44,000 h.p.

The degree of duplication and the general flexibility of operation afforded as a consequence of the various power developments is such that the company could suffer an entire loss of power from any one unit, including the 22,000 h.p. station at Lois River and still operate its paper mill plant to full capacity. Continuity of supply to customers is thus assured.

Wharfage Facilities

Powell River's location in British Columbia's southern seaboard ensures all year round shipping facilities. The company have their own wharves, equipped with Barlow elevators, cranes and electric trains for transportation of paper from the mill to the storage sheds. Berthing accommodation has been provided for deep sea ships and newsprint may be shipped direct from Powell River to any point on the Pacific Coast, Gulf or overseas seaboard.

Timber Resources

The directors of the company, by a wise and prudent anticipation of future requirements have amply safeguarded their timber reserves for many decades. The company have steadily increased their holdings in recent years. Their present concessions contain some of the finest spruce and hemlock stands in British Columbia, and the future of the pulpwood supply is safeguarded indefinitely.

Towing and Transportation

The Powell River Company operates its own fleet of tug boats. Four tugs comprise the fleet of the Kingcome Navigation Company, a wholly owned subsidiary. Two of these are on regular service hauling logs from the booming grounds among the islands and inlets of the British Columbia coast to the log pond at Powell River. The company also maintains a regular tri-weekly freight service between Poll River and Vancouver, carrying both paper and general merchandise. Paper destined for Colorado, New Mexico, Texas rail shipments, Oklahoma and other interior points is shipped in covered house barges over this eighty mile stretch of protected waters, and transferred to the Trans-Continental Rail Lines at Vancouver. These barges are watertight, and designed to eliminate any possibility of damage due to projecting beams or uneven interior surfaces. Direct boat service via the Panama Canal and to the Orient is also available.

Saw Mill Equipment

The average monthly cut approximates 11 million feet. The daily average cut is about 450,000 f.b.m. The saw mill equipment includes a duplicate bandsaw break down mill, either side of which is capable of maintaining plant operation in the event of emergency. The company break down mill and wood preparing rooms are conceded to represent the last word in modern sawmill and woodroom practice. To handle the daily cut of the big saw mill the following equipment is installed:

Two 10-foot bandsaws; one 10-inch edger, with six 30-inch saws; one 12-inch edger, with six 32-inch saws; two slashers, each with sixteen 44-inch saws and one 96-inch cut-off saw.

Housing and Living Accommodation

The Powell River townsite includes 460 homes, erected by the company. The houses vary in size from four to ten rooms and all are equipped with every modern con-

venience. Moderate rents are charged to employees with nominal flat charges for water and extra electric appliances.

In the past five years, the expansion of the plant has resulted in a great development of the districts adjoining the company property. In the neighborhood of 700 homes have been built in the three suburbs of Westview, Wildwood and Cranberry.

With the assistance of the company, the residents of these districts have erected their schools and installed light and water in their homes. Regular bus services are maintained between Powell River and these communities.

In addition to the regular homes for married employees the company have provided an up to date boarding house for single employees where room and board may be obtained at low rates.

Social and Fraternal Life

The company have provided every possible advantage for the expression of social and fraternal activities. Dwight Hall, the centre of the district's social world, was erected in 1926 at an approximate cost of $150,000. It contains an auditorium and dance hall, with seating accommodation for 800 and dancing space for 500 couples. Lodge room and special banquet rooms are included. A large stage, dressing rooms and lavatories have also been provided. A special room, known as the Scout Hall was built primarily for the needs of the various boys and girls organizations in the Townsite.

A modern library has been provided by the company with over 3000 volumes at the disposal of employees, as well as a large and widely assorted collection of weekly and monthly periodicals. These may be obtained without cost.

Hospital Accommodation

The Powell River hospital is operated by the Powell River Sick Benefit Society of which every employee is a member. It is a modern up-to-date institution, equipped with 41 beds, and a staff of qualified nurses and medical practitioners. X-ray, Diathermy machines, fluoroscopic tables and other modern equipment is included. Each employee pays a regular monthly fee to the Sick Benefit Society in return for which he receives free treatment and a regular weekly allowance when ill.

Recreative Activities

Recreative facilities provided by the company include a fully equipped gymnasium with paid instructor. Gymnasium displays, boxing, wrestling, basketball and badminton are permitted every scope. Two athletic fields have been built, one of which includes a quarter mile cinder track, grandstand, showers and dressing rooms. Baseball and soccer enjoy extensive patronage in their respective seasons.

A sporty, nine hole golf course was completed by the company a few years ago. Entrance fee and yearly dues are exceptionally low and permit of wide spread participation.

A lawn bowling green which ranks among the finest in B. C. and an outdoor tennis court are other popular additions to the recreative equipment supplied by the company.

A bathing beach set in picturesque surroundings and provided with dressing rooms, showers, high diving raft and float is another popular institution maintained by the company for employees. A paid swimming instructor and life guard are on duty throughout the summer months.

Hunting and Fishing

Both sea and lake fishing may be enjoyed. Powell Lake, with its sporty rainbows and cutthroats, is among the favored fishing resorts of the coast. In Malaspina Straits, salmon and other sea fish abound.

Excellent hunting may be found within a few miles of the townsite. In the hills and slopes bordering Powell Lake, one may hunt the deer, goat and other species of wild game in their native haunts.

Engineering and Laboratory Department

The establishment of a complete paper mill unit situated at the front door of the great softwood stands of British Columbia has enabled the company to prove the quality of Powell River newsprint in many parts of the Western Hemisphere. It is, however, the company's policy to improve quality at every possible opportunity and to this end the company maintains an exceedingly comprehensive and efficient engineering, technical and research staff who are constantly working toward the end of increased service to customers.

The Powell River Mills are about 400 miles north of Portland. Boat transportation is available four times a week from Powell River to Vancouver, B. C., the journey averaging from five to seven hours. Rail or bus connection between Vancouver and Portland is available several times daily, with an approximate running time of ten hours.

Pacific Coast Paper Mills

Pacific Coast Paper Mills, located at Bellingham, Wash., on Bellingham Bay, manufactures a full line of toilet paper, paper napkins, and paper towels.

Officers of the company are: J. J. Herb, president; P. J. Herb, vice president; Wm. McCrush, treasurer; V. A. Hughes, secretary; P. J. Onkels, superintendent; F. J. Herb, sales manager, Washington and Oregon; C. G. Sparrowe, sales manager, California.

The Pacific Coast Paper Mills started production in the Spring of 1927, selling roll toilet paper, gradually increasing production and installing new equipment until at the present time a full line of toilet tissues, paper napkins, and paper towels are being produced.

During 1931 the mill started the production of a new roll of full bleached toilet paper and is advertising it on the Pacific Coast under the mill label "M. D. Tissue." A steady increase in volume is being shown in the sale of this excellent product.

The mill has operated continuously throughout the depression, giving employment to a full crew of 135 men and women, with an annual pay-roll of $115,000.

Mill Visits at Longview, Wash.

One day of the convention program has been set aside for a visit to Longview, Wash., fifty miles north of Portland, on the Columbia River, so that those in attendance who wish, may see some of the newer pulp and paper mills in this section. This trip will be in combination with the Paul Bunyan Express to the logging operations, but those who do not wish to go into the logging operations, may have at their option, visiting any or all of the three outstanding pulp and paper mills and two mammoth sawmills, the largest in the world. It may be that this schedule will be so arranged that one may see both the logging operation and these mills in one day and still return to Portland for a late dinner.

Weyerhaeuser Timber Co.

The Weyerhaeuser Timber Company have one of the

finest pulp mills on the Pacific Coast, located at Longview, making both bleached and unbleached sulphite of high quality. The equipment and engineering layout of this unit is radically different from a great many similar mills of this kind, and is well worth the time necessary to carefully inspect the unique features which they have employed.

The mill is located on deep water and ocean-going vessels of 35 feet draft are easily handled at their docks. The mill is under the management of R. B. Wolf, R. S. Hatch technical director, who are both past officers of TAPPI, and W. N. Kelly, superintendent.

Their production is rated at approximately 175 tons of bleached sulphite per day. This is indeed an outstanding mill and deserves special consideration from those interested in pulp mill construction.

The wood supply is provided by the adjacent sawmill operations of the company which is one of the largest sawmills of its kind in the world. This tremendous plant has a capacity of supply wood for pulp mills many times the size of this one. All the sawmill and logging operations are under the management of Mr. A. L. Raught, Jr., and for those who have not seen a modern, western sawmill, this will be a revelation.

Longview Fibre Co.

For those who are interested in kraft paper production, the Longview Fibre Co. mill at Longview, will be open to the visitors and here may be seen one of the west coast's modern kraft plants.

Their production is rated as follows: Mechanical pulp, 30 tons; sulphate, 120 tons; paper production, sulphate, 50 tons, and board, 100 tons.

There is also a complete bag plant in connection with their operation. Many of the processes are unique and under the able management of R. S. Wertheimer, have developed from a one-machine plant until now they have four machines.

Much of their equipment is designed along the most modern lines, and the use of stainless steel is much in evidence.

A trip to Longview will not be complete without a visit to this plant.

Pacific Straw Paper & Board Co.

When Longview was laid out by the late R. A. Long, he probably did not, in his great vision, see such a large and thriving industrial town as Longview has lately become. One of the first of the paper industries developed there was that of the Pacific Straw Paper and Board Company. They make a variety of board products, such as container board, white patent coated board, egg cases, fillers and bleached Manilla's, chip board, tag board, etc. This plant is operated by Charles F. Schaub, president, and A. W. Zimmerman, manager. They have developed quite a business in fruit and berry boxes, and are one of the leaders in this industry. This plant has been operating nearly continuously all during the late depression, and will be opened to all TAPPI delegates who will be most welcome.

Crown Willamette Paper Co., Camas, Wash.

One of the feature trips arranged during the International Convention of TAPPI in Portland, Ore., on September 10th to September 13th, will be the visit to the Crown-Willamette Paper Company's mill at Camas, Washington, which is located 25 miles east of Portland, on the beautiful Columbia River.

This mill is said to be the largest paper specialty manufacturing plant of its kind in the United States, and more than one thousand kinds and grades of paper are regularly produced.

George P. Berkey, executive vice president in charge of operations, in the northwest, is arranging to give a royal welcome to TAPPI members and has made it possible for them to see this remarkable manufacturing unit of the Crown-Willamette.

The production of this mill is divided as follows: Mechanical pulp 90 tons; unbleached sulphite 200 tons; bleached sulphite 100 tons, sulphate 100 tons; paper production is divided between 350 tons sulphite and 60 tons of sulphate.

There is a complete bag factory in connection with the pulp and paper mill operation. J. E. Hanny, resident manager, together with A. G. Natwick, who is chairman of the committee on mill visits, also assistant manager of the Camas plant, will be on the ground there to answer all questions and direct the visitors in an efficient and thorough manner.

The Crown-Willamette also operate a large newsprint mill at West Linn, Ore., which is about 15 miles south of Portland on the Willamette River, and a small mill of 35 tons unbleached capacity at Lebanon, Ore., which is about 85 miles south of Portland.

The West Linn plant has a capacity of 375 tons of mechanical pulp and 90 tons of unbleached sulphite. Its paper capacity is 350 tons of newsprint and 23 tons of sulphites. This plant is located really in the middle of the Willamette River, in which there is a small falls, from which water power is developed to do most of the work, particularly in the grinding department. There is a Government locks at the plant so that ships may be barged from their Cathlamet operations from the lower Columbia to the plant and finished paper products barged or taken by steamer from the mill to Portland's deep sea harbor, where they are shipped to various parts of the world. This plant will likewise be open to inspection by those who are interested in it. It is under the resident managership of C. E. Bruner.

TOMAHAWK ORGANIZATION

(Continued from page 15)

placed in the new government dam on the lower Fox River at Appleton, Wis. has been built. The first section of the spillway also will be completed this week. The gates have been assembled and after being painted will be put in place. Construction of the last spillway will be started before the end of this month.

Drier loft machinery is now being replaced in number three mill of the Fox River Paper Company, Appleton, Wis., following completion of construction of a new floor in the second story. A wooden floor was replaced with one of steel and concrete construction. This section of the mill has been out of operation during the remodeling.

John Strange, of Neenan, Wis., is on leave of absence from the Lawrence Institute of Paper Chemistry at Appleton, Wis. He is in New York City serving as secretary of the central grading committee for the paper industry, and is located at the headquarters of the paper industry code authority.

The death of J. R. Buchanan, one of the founders of Appleton Wire Works, Appleton, Wis., occurred August 3 at Ottawa, Ontario, at the age of 62. He was associated with the company until twenty years ago when he moved to Canada. The decedent is a brother of G. E. Buchanan, secretary of the company.

Obituary

Lewis Miller Alexander

[FROM OUR REGULAR CORRESPONDENT]

APPLETON, Wis., August 11, 1934.—Lewis Miller Alexander, president of the Nekoosa-Edwards Paper Company, Port Edwards, Wis., and a nationally known figure in paper manufacturing circles, died unexpectedly on Tuesday evening, August 7, at his home at Port Edwards. Apparently in good health and spirits as he spent the previous day at his office and at a meeting of the board of directors of the company, he was stricken with paralysis at 7:30 Tuesday morning. He lapsed into unconsciousness and passed away at 6:10 in the evening.

Funeral services were held Saturday morning, August 11, at the Port Edwards auditorium and were attended by many of his associates in business life, and by hundreds of employees and townspeople. The mills at Port Edwards and Nekoosa suspended operations for the day, and the sales offices in Chicago also were closed for the day out of respect to him. The body was conveyed by motor to Milwaukee, Wis., where it was placed in the family mausoleum at Forest Home cemetery. The services were conducted by Dr. Edwin Holt Hughes, bishop of the Washington, D. C. area of the Methodist Episcopal church, a long-time intimate friend of Mr. Alexander. The bishop was assisted by the Rev. T. J. Reykdal, pastor of the First Methodist Episcopal church of Wisconsin Rapids, Wis.

Mr. Alexander was 76 years old. He was born July 12, 1856 at Osage, Iowa. He received his early education in the public schools of Mitchell County, Iowa, and completed his schooling at the Cedar Valley Seminary at Osage, Iowa. He assisted in the operation of his father's farm at Osage. At the beginning of his career, he worked as a railway mail clerk and as a messenger for the America Express Company. His attention was drawn to the financial field, and he soon obtained employment in the Osage National Bank of Osage, Iowa. He worked there for eight years as teller and bookkeeper. In 1882 he moved with his parents to California, where he was engaged as a general merchant for two years. He again returned to banking, however, and assisted in organizing the Santa Rosa National Bank of Santa Rose, Cal. He was cashier of that institution for five years.

In 1885 Mr. Alexander met the late John Edwards, of Port Edwards, Wis., who had gone to California for a visit. In 1890 Mr. Edwards persuaded him to join him in the management of his many properties in Wisconsin. The extensive logging operations of Mr. Edwards were incorporated October 15, 1890 as the John Edwards Manufacturing Company, with Mr. Alexander as its secretary and treasurer. When Mr. Edwards died the following year, Mr. Alexander became president of the company. The exhaustion of timber in Wood county led Mr. Alexander to organize the Nekoosa Paper Company of Nekoosa, Wis. in 1893. He then began to extend his interests and became president of the Centralia Pulp and Water Power Company, which built the first pulp and paper mill on the Wisconsin river. In 1896 he built the John Edwards Paper Mill on the site of the old Edwards sawmill. He continued the active management of this and the Centralia company for ten years. In June, 1908, all of these properties, together with the extensive timber holdings of the Nash Lumber Company in Ashland and Sawyer counties, were consolidated under the name of Nekoosa-Edwards Paper Company. Thomas E. Nash was president of the company, and Mr. Alexander was vice president. Mr. Nash retired in 1911 due to failing health, and Mr. Alexander was then elected president of the company, and also became its general manager.

Since Mr. Alexander became the directing genius of this vast corporation, he made continuous improvements as the technical progress of the paper industry advanced, and the Nekoosa-Edwards Paper Company today is one of the most modern in the field. The valuation of the properties rose from $300,000 to more than $15,000,000 under Mr. Alexander's guidance. In 1927, he turned the management over to his son, John Alexander, but continued to serve as president and treasurer, and to devote a large part of his time to the business.

Mr. Alexander also was heavily interested in the Inland Empire Paper Company of Millwood, Wash., and was president and principal owner of the Iroquois Door Company of Buffalo, N. Y., and the Iroquois Millwork Corporation, of Albany. He was one of the organizers in 1891 of the Wood County National Bank of Wisconsin Rapids, Wis., of which he has since been chairman of the board of directors. In 1914 he was also one of the founders of the Nekoosa State Bank, of which he became first vice president.

In earlier years, Mr. Alexander was president of the Merchants and Manufacturers Bank, and vice president of the Milwaukee National Bank, both of Milwaukee, Wis. These banks were later absorbed by the First Wisconsin National Bank. He also was an organizer and director of the Great Northern Life Insurance Company, which he began at Wausau, Wis., and later moved its head offices to Chicago. He was also a charter member of the Central National Fire Insurance Company, and because of his co-operation with the Wisconsin legislature in launching the workmen's compensation act, was instrumental in founding the Employers Mutual Liability Company of Wausau, Wis.

Mr. Alexander was one of the 150 leading industrialists of the country who in 1912 responded to the urgent call of President William Howard Taft to organize the Chamber of Commerce of the United States. He was an active member for eighteen years.

Although burdened with the activities of his business career, Mr. Alexander found time to devote to civic affairs. He served for many years as president of the town board of Port Edwards, and at various periods as school director, library trustee, board member and village treasurer. He was keenly interested in educational advancement and was largely responsible for erection of the excellent modern school buildings at Port Edwards. For more than thirty-five years he served as president of the board of trustees of Lawrence college, Appleton, Wis. He endowed the first gymnasium built for the college, which bore his name. Several years ago he made the major contribution for the erection of the $500,000 gymnasium at the college, which also is known as Alexander gymnasium. He also had a large share in the joint endowment of the Edwards-Alexander chair in English literature at Lawrence college. When he retired as president of the college board in 1932, he was presented with a silver loving cup five feet in height by the board of trustees, and it became one of his most cherished possessions.

Although not active in Lawrence college affairs after retirement, Mr. Alexander consented to become one of the seven charter members of the board of trustees of the Institute of Paper Chemistry at Lawrence college when it was founded. He also donated the Lewis M. Alexander library to the American University at Washington, D. C.

As one of the leading laymen of the Methodist Episcopal church, Mr. Alexander served for three terms in the general conference of the church. He was a member of the

Independent Order of Odd Fellows, the Union League and Mid-Day clubs of Chicago, and the Milwaukee Athletic club. He was a patron of art, and in later years travelled extensively in Europe and Africa. He also maintained an elaborate winter home at St. Petersburg, Fla.

The survivors are the widow and one son, John, and two brothers, Julius H., Portland, Oregon, and Frank, St. Helena, Cal. He was a first cousin of Mrs. Thomas A. Edison, widow of the inventor.

Edwin Corning

ALBANY, N. Y., August 11, 1934.—Edwin Corning, president of the Albany Felt Company, died this week at his summer home in Bar Harbor, Me., following a long illness. Besides being prominent in industrial life he was also an important figure in politics for many years. He was born in this city in 1883 and graduated from Yale University in 1906. From 1927-29 he served a term as Lieutenant-Governor and was head of the Democratic State Committee for many years. He resigned as Lieutenant-Governor at the height of his political career because of failing health and since had devoted his time to business duties. Besides being a director in a number of financial institutions he was also head of the Ludlum Steel Company, a nationally known concern. Congressman Parker Corning, a brother, was associated with him in conducting the affairs of the Albany Felt Company, and is among the principal survivors. The others include his widow, two sons and two daughters.

A. N. Wilcox

MINNEAPOLIS, Minn., August 11, 1934.—Archie N. Wilcox, 201 West Rustic Lodge Avenue, president of the Wilcox-Mosher-Leffholm Paper Company, and for many years prominent in conservation work, died Thursday, October 2, at Deaconess Hospital, following an illness of four months. Mr. Wilcox was 62 years of age.

Born at Halifax, Vt., Mr. Wilcox came to Minnesota in his youth. He had been a Minneapolis resident 44 years. He was serving his second consecutive term as president of the Minneapolis chapter of the Izaac Walton league at the time of his death. Throughout his life, Mr. Wilcox had taken a keen interest in conservation work. He was an ardent sportsman, and never missed a hunting season in the north woods.

Mr. Wilcox was active in the Shrine. A past potentate of Zuhrah temple, he was a member of the Scottish Rite, of Lynnhurst lodge, A. F. & A. M. and of the Shrine. He also was a member of the Minneapolis Athletic club. He is survived by one daughter, Vera Wilcox.

William B. Hollingsworth

FULTON, N. Y., August 13, 1934.—William B. Hollingsworth, aged 60, night superintendent of the Oswego Falls Corporation, died suddenly Saturday, August 4, while walking near his home.

Mr. Hollingsworth was born in Herkimer March 9, 1874. He attended Herkimer schools and was graduated from the high school.

From high school he went directly into the paper manufacturing industry, obtaining a position in a mill at Niagara Falls. For ten years he worked at the power site and then came to Fulton, arriving here 34 years ago.

He went to work in the Oswego Falls Corporation's firts mill here and at the time of his death he was night superintendent. He had been tour superintendent many years before being promoted recently.

His brother, the late John H. Hollingsworth, was in the paper business many years. He died September 26, 1933. John was president of the John H. Hollingsworth Paper Company at Phoenix.

While at Niagara Falls, Mr. Hollingsworth had been a member of the national guard. He married Miss Anna Newell of Fulton, a native of England, here on March 7, 1903. They had lived in their present residence thirty years.

Surviving are three daughters, Miss Hazel Hollingsworth, Miss Harriett Hollingsworth and Miss Anne Hollingsworth; two sons, Newell and William Hollingsworth; a brother, James Hollingsworth of Jacksonville, Fla., and three sisters, Mrs. Arthur Culver of Chicago, Mrs. William Wright and Mrs. Charles Lee of Herkimer.

Y. Marcy Edwards

BOSTON, Mass., August 13, 1934.—Y. Marcy Edwards, aged 58, formerly president of the Eastern Paper Company, whose office was at 683 Atlantic Avenue, died recently at his residence in Crescent, Saratoga County, N. Y., according to word received here.

Mr. Edwards was the son of H. W. Edwards, who was a member of the paper trade in this vicinity for many years. His early training in the box board field was acquired with the Charles D. Brown Company, very well known for some years throughout New England as dealers in paper box board and paper. In 1909, he left this concern to form the Eastern Paper Company, with which he was connected until 1921, when he took up his residence in California, where he lived for a while.

Mr. Edwards was an enthusiastic follower of both tennis and golf. He was a member of the Boston Athletic Association, Boston City Club and Commonwealth, Woodland and Unicorn Country Clubs.

He is survived by his widow, Mrs. Susan (Tenney) Edwards, and a daughter, Miss Margaret Edwards, both of Crescent, N. Y., and another daughter, Mrs. Lansing Ten Eyck, and a grandson, Lansing Ten Eyck, Jr., of New York.

Charles W. Kingsley

CLEVELAND, Ohio, August 13, 1934.—Charles W. Kingsley, pioneer paper manufacturer of this city and former owner of race horses, died at his home yesterday after a brief illness. He was 85.

The grandson of early New England settlers, Mr. Kingsley became associated with the Cleveland Window Glass Company here more than a half century ago. He became general managr of the concern, but resigned in 1902 to become general manager of the Cleveland Paper Company.

With his brothers, the late General H. B. Kingsley and the late H. F. Kingsley, he organized the Kingsley Paper Company in 1906, retiring in 1925 after developing the company to one of the largest in Ohio. During his time he purchased an interest in the Cleveland Window Glass Company and was its vice-president for nine years.

Mr. Kingsley numbered President McKinley among his intimate friends.

Envelope Companies Safety Record

[FROM OUR REGULAR CORRESPONDENT]

WORCESTER, Mass., August 13, 1934.—The Logan Drinking Cup Company Division of the United States Envelope Company and the Whitcomb Envelope Company, both of this city, are among those having no lost-time accidents in the completion of six months in the statewide industrial accident reduction contest, and appear on the honor roll of the Massachusetts Safety Council.

CONSTRUCTION NEWS

A Summary of Vital Facts Regarding Construction, Finances and Operation of Paper Mills

Construction News

Garwood, N. J.—The Cellulose Company, Garwood, manufacturer of cellulose paper products, has arranged for lease of former local plant of the Hall Signal Company, and will remodel and improve for new factory. Immediate possession will be taken and equipment installed.

Dayton, Ohio—The Central Ohio Paper Company, 131 East Sixth street, has asked bids on general contract for extensions and improvements in storage and distributing plant, location noted. Cost close to $20,000, with equipment. It is proposed to award contract and proceed with work at early date. W. H. Bancroft is vice-president and local manager.

Holyoke, Mass.—The Graham Manufacturing Company, recently organized with capital of $40,000, plans operation of mill in this vicinity for production of a line of paper goods. New company is headed by Floyd R. Graham, Bernard avenue, South Hadley, Mass., as president and Treasurer, and Charles S. Ballard, Holyoke.

Philadelphia, Pa.—The Container Corporation of America, Inc., Fountain and Nixon streets, manufacturer of corrugated and other containers, boxes, etc., has filed plans for new two-story addition to steam power plant on Fountain street. Cost over $35,000, with equipment. Company headquarters are at 111 West Washington street, Chicago, Ill. H. M. Wilson Company, 18th and Brandywine streets, Philadelphia, are engineers.

Birmingham, Ala.—The Barrett Company, 40 Rector street, New York, N. Y., manufacturer of building papers, prepared roofing stocks, etc., is considering early rebuilding of portion of plant at Wylam, Birmingham, used for production of tar and other raw material stocks, recently destroyed by fire with loss reported over $100,000, including equipment.

Chicago, Ill.—The Viscose Products Corporation, Room 1819, 11 South LaSalle street, recently chartered with capital of 250 shares of stock, is said to be planning operation of local plant for manufacture of cellulose and cellulose paper specialties. Incorporators include M. K. Busse and J. L. Elshstein.

Erving, Mass.—The Erving Paper Mills, manufacturers of tissue paper specialties, etc., are beginning foundations for new addition to plant, recently referred to in these columns, to be two-story, brick and steel type, 80 x 80 feet, for which general contract recently was let to E. J. Kennedy, Jr., Holyoke, Mass. New unit will be used for general production and will be pushed to early completion.

East Palestine, Ohio—The Grove Paper Company, manufacturer of spiral wound paper containers and allied products, has begun operations on preliminary basis at new local plant in Eastern part of city, and will step up production in near future to normal schedule, with employment of additional workers. The company was organized recently by D. E. Grove, Columbiana, Ohio, and associates.

Leesburg, Fla.—The Southern Pulp and Paper Company, Leesburg, has been organized by John Wehr and W. N. McKinney, Leesburg, and associates, to operate a mill in this vicinity for manufacture of a line of paper products.

Chicago, Ill.—The Container Corporation of America, Inc., manufacturer of corrugated papers and containers, boxes, etc., plans extensions and improvements in different plants throughout the country to cost about $800,000 during the remainder of present year, including building construction, remodeling and equipment installations. Increased capacity and higher operating efficiency will be carried out at the various plant units. During the first six months of the present year, the company reports an expenditure of $479,328 for similar purposes. Additions are being made to research facilities and three new laboratories for such work, including testing, have recently been completed.

Northumberland, N. H.—The Rushmore Paper Mills, Windsor Locks, Conn., manufacturers of waxed and processed papers, etc., have curtailed operations at local mill, with several departments now closed, and are transferring operations to main plant at Northumberland, known as the Wyoming Valley Paper Mill, headed by the same interests, with headquarters at 5 Beekman street, New York, N. Y. The change is being made as a result of tax assessments by the Town of Windsor Locks. One division of the Windsor Locks mill has been running up to this time on a 24-hour day basis, and others on 16-hour day, divided into 8-hour shifts. Increased production facilities will be arranged at the Northumberland mill as a result of the change. J. S. Wemyss is president and treasurer of both companies.

Greenville, Miss.—The United States Gypsum Company, 300 West Adams street, Chicago, Ill., is awarding miscellaneous contracts for construction of new addition to insulating board manufacturing plant at Greenville, recently referred to in these columns. The Worden-Allen Company, Milwaukee, Wis., has secured contract for structural steel framing, totaling about 295 tons. New unit will be one-story, 145 x 234 feet, and will cost over $250,000, including equipment. Superstructure will proceed at once. The H. K. Ferguson Company, Hanna Building, Cleveland, Ohio, has the general construction contract.

Powell River, B. C.—The Powell River Company, Ltd., Vancouver, B. C., and 311 East 14th street, Minneapolis, Minn., has approved plans for new addition to mill at Powell River, to be three-story, 49 x 68 feet. New

DOWNINGTOWN

A NEW CHAPTER IN THE HISTORY OF BOARD MAKING

WHEN the primary press part was first introduced, its advantages were so phenomenal and indispensible that every board machine in the country became obsolete almost overnight. It remained standard for many years, but now, history is destined to repeat itself through the elimination of these same numerous small diameter presses by Downingtown Duo-Dehydration . . . This modern method of safely removing water by Extraction and Suction is applied in various arrangements and offers opportunities for more vat capacity, more plain presses or more dryers in the space gained. Write us today for the names of the mills that are now experiencing the advantages of the Downingtown Duo-Dehydrating Press Part. The Downingtown Mfg. Co., Downingtown, Pa.

No Board Machine is Modern *Without* DUO-DEHYDRATION

filter equipment and accessories will be installed. Cost over $60,000 with machinery.

Kapuskasing, Ont.—The raw material storage department at mill of the Spruce Falls Power & Paper Company, Ltd., Kapuskasing, was damaged recently by fire, when about 20 cars of sulphur were destroyed. An official estimate of loss has not been announced. The damage will be replaced.

Chandler, Que.—The Premier Pulp and Paper Corporation, recently organized, is said to have plans maturing for a new local mill, consisting of several buildings, estimated to cost close to $100,000, with equipment. It is proposed to begin work early in the Fall.

Horwich, England—The Vale Paper Works, Ltd., Horwich, near Bolton, Lancashire, have begun an expansion and improvement program at plant, to include installation of additional equipment in different departments for increased production.

Toyko, Japan—Teikoku Jinzo Kenshi Kaisha, Ltd., manufacturer of cellulose rayon products, has approved plans for several new additions to mill, with installation of additional equipment for large increase in present capacity. Work is scheduled for completion by the close of this year, when plant will have a rating of close to 100,000 pounds of material per day. Expansion program is reported to cost over $500,000, with machinery.

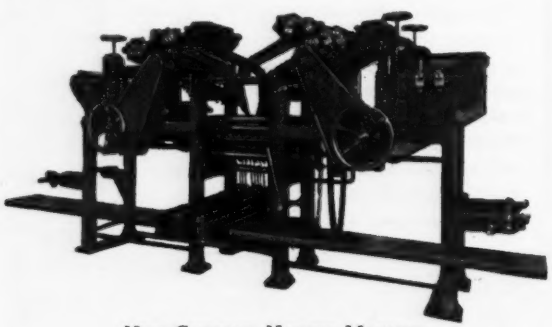
Chicago, Ill.—The Diamond T Waxed Paper Corporation, 112 North May street, manufacturer of waxed and processed papers, has organized an affiliated interest under name of Dependable Oil & Wax Supplies Corporation, same address, with capital of 100 shares of stock, no par value, to deal in kindred raw materials. The incorporators include Raymond S. Jackson and William F. Downing.

Albany, N. Y.—The Harry Yaguda Company, Inc., has been chartered with capital of $5000, to deal in paper bags, containers, etc. The incorporators are Harry Yuguda 7 South Pine street, and Robert L. Novark, 82 State street.

A New Napkin Machine

A cocktail napkin machine which delivers 10 x 10 inch quarterfold embossed napkins is announced by the Paper Converting Machine Company, Green Bay, Wis., manufacturers of paper converting machinery. Illustrated herewith, this machine is equipped for die inking in one color and printing in two colors, but it can be built with any number of die inkers up to four and any number of printers up to four colors. The machine shown here has two one color die inkers, two embossers and two two color printers, and operates at a speed of 325 napkins per web or 650 napkins on the two webs. This production is guaranteed.

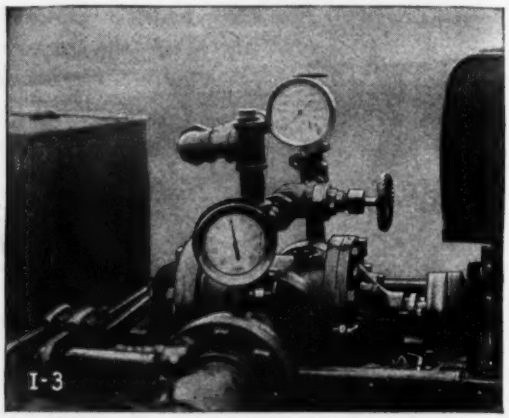
All ball bearing, this machine has the latest easily adjustable shear cut knife. The paper and steel embossing rolls are two time.



NEW COCKTAIL NAPKIN MACHINE

A Portable Rotary Pumping Unit

The development of a high speed rotary displacement pump has made possible the compact and comparatively light weight transportable gasoline engine driven unit mounted on a trailer. The pump, which was supplied by the De Laval Steam Turbine Company, Trenton, N. J., is known as the De Laval-IMO pump. Driven at approximately 1675 r.p.m. by a 60 hp. gasoline engine, it delivers 90 gal. per min. against 495 lb. per square inch pressure with a suction lift equivalent to 14 inches of mercury. The pump itself weighs only 398 lbs., and the complete



CLOSE-UP OF ROTARY DISPLACEMENT PUMP

unit, with engine, about 2,000 lbs. Upon referring to the sectional view, it will be seen that the pump has only three working parts, a central power rotor and two sealing rotors, which mesh in such manner that the liquid is carried through, as by continuously acting piston, without shock or pulsation. There are no timing gears or separate bearings, and but one stuffing box, which is subjected to suction pressure only.

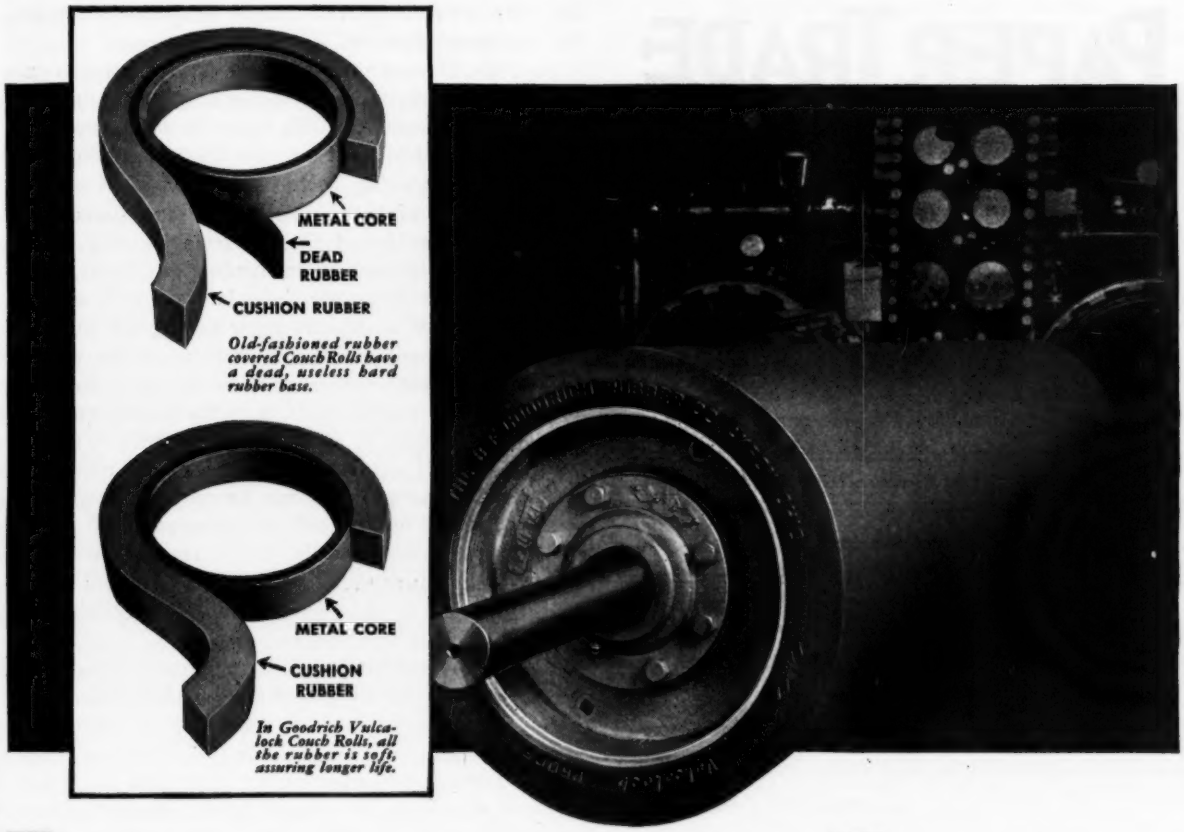
The rotating parts are in complete rotational balance and, except for suction pressure against the area of the driving spindle at the stuffing box, are also in hydraulic balance axially as well.

Domestic Minerals for Canadian Mills

[FROM OUR REGULAR CORRESPONDENT]

MONTREAL, Que., August 13, 1934.—Horace Freeman, research chemist for one of the large paper companies in Canada, has an article in the current bulletin of the Canadian Institute of Mining and Metallurgy in which he discusses the minerals used in the pulp and paper industry. He notes, for instance, that there is an important deposit of china clay in Quebec which may be drawn upon in place of importing china clay, large-scale trials with the Canadian mineral now being under way. Similarly, the former substantial imports of alum used in making paper have been much reduced by bringing in the raw material, bauxite, from British Guiana and treating it with Canadian-made acid.

The most important mineral used in making pulp and paper is sulphur, and this is still almost entirely imported, though a native supply of ample proportions is now available. For 2½ years the St. Lawrence mill at Three Rivers has used exclusively Canadian sulphur, obtained as a by-product in the form of pyrite from the Eustis and other mines. This has been used at a substantial saving in cost compared with imported sulphur, though it has no tariff protection, and Mr. Freeman predicts that its use will be extended rapidly to other mills.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DEAD RUBBER
CUSHION RUBBER
Old-fashioned rubber covered Couch Rolls have a dead, useless hard rubber base.
METAL CORE
CUSHION RUBBER
In Goodrich Vulcalock Couch Rolls, all the rubber is soft, assuring longer life.

But your couch roll isn't a stalk of celery

YOU may want only the heart of the celery, but your grocer usually sells you the stalk. And you may want only the soft rubber covering on your couch roll to get a clean pick-up, but unless you are careful you'll buy (*and pay for*) waste rubber, too.

There is no waste when you buy Goodrich Vulcalock Couch Rolls. This is made possible by the Vulcalock process, the exclusive Goodrich method of bonding soft rubber to metal with a high degree of adhesion. Only live, soft rubber surrounds the core—a covering which gives you 25% to 40% more usable cushion than you receive from hard rubber base rolls.

Not only does the Vulcalock process prolong the useful life of the roll but, as plastometer readings will tell you, it also imparts more uniform density to the roll. (That's because we don't have to work with two kinds of rubber—hard rubber and soft rubber.) The rubber compound is tougher, and more resilient throughout.

Years ago the Vulcalock process enabled Goodrich to solve another couch roll problem which had vexed the best brains of two industries—corrosion at the ends. With Vulcalock, the rubber may be drawn down over the edge to form a perfect end anchor—impervious to moisture and corrosion.

Write today for the free pamphlet "Couch Rolls for Cylinder Machines" which sets forth the latest and best thinking on the whole subject of couch rolls. If you wish, one of our representatives will call and explain just why Goodrich Vulcalock Couch Rolls will last longer and how they will help you make better paper. The B. F. Goodrich Company, Mechanical Rubber Goods Division, Akron, Ohio.

ROLL COVERINGS—BELTING—HOSE—MISCELLANEOUS RUBBER PRODUCTS

Goodrich

ALL *products problems* IN RUBBER

Vulcalock *Couch Rolls*

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COMING EVENTS

Technical Association of the Pulp and Paper Industry, Fall meeting. Headquarters Multnomah Hotel, Portland, Ore., September 10-13, 1934.

Paper and Pulp Section, National Safety Council, annual convention, Hotel Statler, Cleveland, Ohio, October 1-5, 1934.

NEWSPRINT PLAN CHARACTERISTICALLY OPPOSED BY PUBLISHERS

For a long number of years the PAPER TRADE JOURNAL has maintained that the newsprint manufacturers have the toughest set of customers in the world to deal with. This fact is constantly being made obvious. It was especially apparent in 1911 when the newspaper publishers, regardless of political faith, influenced a republican President to place newsprint on the free list and in effect make a present of the great newsprint industry of the United States to Canada.

It was specially apparent again in 1917 when the daily press encouraged the government to prosecute a group of representative newsprint manufacturers on the charge of conspiracy in restraint of trade. Because of the critical situation produced by the war, apparently, these men changed their original plea of not guilty to *nolo contendere* and were given a nominal fine and placed under certain restrictions not to commit certain acts again. As John B. Stanchfield, counsel for the defense put it, "this plea was decided on as a patriotic deed in this time of stress." It seemed like bedevilment of no gentle sort, therefore, when Elisha Hanson of counsel for the American Newspaper Publishers Association, at the hearing in Washington on August 3, in connection with the proposed recommendations in respect to the stabilization of the newsprint industry and the elimination of unfair practices and destructive competitive prices, brought up this old case as an obstacle to the plan to furnish much needed relief to the newsprint industry.

Said Mr. Hanson: "A third reason why this plan cannot be approved is that it is in violation of a certain final decree filed on November 26, 1917, in the District Court of the United States for the Southern District of New York, perpetually enjoining each of a number of newsprint manufacturers of the United States and Canada doing business in the United States, 'from entering into any combination agreement, understanding or concert of action with any other corporate defendant or with any other manufacturer of newsprint paper having for purpose or effect (a) to limit or restrict itself as to the customers to whom it should sell or offer to sell newsprint paper; (b) to limit or restrict itself as to the quality or quantity of newsprint paper it should make or sell; (c) to limit or restrict itself as to the service it should render to its customers or the prices, terms or conditions upon which it should sell or offer to sell newsprint paper.'"

This was Section 3 in the decree against the defendant newsprint manufacturers. Mr. Hanson, in his remarks, however, failed to make any reference to Section 8 of the decree, which is as follows:

"The court retains jurisdiction to proceed against the defendants not hereby consenting to this decree, and to enforce this decree, and to enable any of the parties to apply to the court for modification hereof, if it be hereafter shown to the satisfaction of the court that by reason of changed conditions or changes in the statute law of the United States the provisions hereof have become inappropriate or inadequate to maintain competitive conditions in the interstate or foreign trade or commerce of the United States in newsprint paper or have become unduly oppressive to defendants or any of them and are no longer necessary to secure or maintain competitive conditions in such trade or commerce."

This latter section is important and indicates, it seems to us, that the original defendants would undoubtedly be able if necessary without much trouble at this time to have the decree, certainly as regards Section 3, set aside or modified as it obviously has become oppressive when it can apparently jeopardize a carefully thought-out plan entirely in accordance with the spirit of the times to save what is left of the great newsprint industry in the United States from more complete destruction.

IMPROVEMENT IN CANADA

That the revival in the pulp and paper industry in Canada has come to stay is the conclusion drawn from statistics relating to the industry, just released by the Dominion Bureau of Statistics. These show that for the first six months of the present year exports have shown consistent increases month by month. For June the total exports of paper were up over $1,250,000 at $7,277,892 from $5,988,610 for June, 1933, the great bulk of the increase being contributed by newsprint, shipments of which were $6,876,158, compared with $5,696,713 in June

last year. Total pulp exports for June were valued at $2,116,134, compared with $1,904,248 in June, 1933. For the 12 months ending June last total exports of paper amounted to $80,609,616, as compared with $72,430,385, and total exports of pulp amounted to $26,182,245, as compared with $18,730,520 for the previous 12 months. The value of the exports of pulp and paper combined for the 12 months with $91,160,905, a betterment of $15,620,956, which is regarded as a highly satisfactory showing considering the low prices still prevailing.

Code for Importing Trades

J. A. L. Moller, of the Moller Products Corporation, 15 East 26th street, New York, writes the PAPER TRADE JOURNAL as follows:

"The undersigned is temporary chairman of the Paper and Paper Products group who come under the Master Code for Importing Trades, which became effective July 30, and it strikes me that some of your readers might appreciate being informed by you of the fact that such a Code is in force.

"The Code number is 487. The office of the General Importers Code Authority has been established at 45 East 17 street. Telephone, Algonquin 4-3720. C. E. Bingham is chairman and executive officer of the Code Authority and of which the writer is at present a member.

"The fact that this Importers Code was not made effective until recently may have caused many firms, who should come under it, to sign up under other codes, but there should be nothing to prevent them from transferring their allegiance to this Code should they be qualified and find it a desirable change.

"The fact that this Code has been and is being administered most economically may also be of interest to importers who may now possibly be contributing rather heavily to the administration of other codes mainly because they felt they should go along with some fairly closely allied group."

To Hold Conference on Pulpwood Rates

[FROM OUR REGULAR CORRESPONDENT]

ALBANY, N. Y., August 13, 1934.—Chamber of Commerce officials and Mayor Thacher are to hold a conference to map out details for a campaign to prevent high rates on imported pulpwood from the local port which were recently ordered deferred by order of the Interstate Commerce Commission. Local port officials believe that an active campaign carried on now will be instrumental in the discarding of the new rates scheduled to become effectve next February. It is planned to make a permanent committee for port development to attend to all matters such as the proposed higher tariffs on pulpwood as sought by the railroads. Following the organization meeting it is planned to seek a hearing with Washington officials in an effort to defeat the proposed higher schedules. Chamber of Commerce officials contend that higher rates would mean oblivion for the local port and prevent competition with other seaports in larger cities.

Approved Pulp Testing Chemist

The Joint Committee on Approved Pulp Testing Chemists for the Paper Industry, 122 East 42d street, New York, announces that A. M. Cadigan, of the Rainier Pulp and Paper Company, Shelton, Wash., has been accepted by the committee as an approved mill pulp testing chemist and is listed as such effective August 8, 1934.

NRA Paper Industry Notes

CYLINDRICAL TIGHT PAPER CONTAINER INDUSTRY FILES BUDGET OF EXPENSES OF CODE ADMINISTRATION

Announcement has been made that the cylindrical tight paper container industry had filed for NRA approval a budget of $30,000 to meet the expense of administering its code from February 1, 1934, to January 31, 1935, together with a proposed basis of contribution as follows: 1 per cent of net sales, to be billed monthly, based on the previous month's sales.

The industry has also applied for a termination of the exemption conferred in administrative order No. X-36, which frees members of the industry from contributing to the expense of administering a code other than that embracing their principal line of business.

Notice was given that any objections to the budget, the basis of contribution or the suggested termination of the exemption must be filed with Deputy Administrator David H. Tulley, prior to August 23.

WATERPROOF PAPER INDUSTRY CODE BUDGET AMENDMENT PROPOSED

The waterproof paper industry, through its Code Authority, has made application to the National Recovery Administrator for approval of a modification of its code of fair competition authorizing preparation of a budget and a basis of contribution to the same by members of the industry for the maintenance of code administration.

Notice has been given that any criticisms of, objections to or suggestions concerning this amendment must be submitted to Deputy Administrator David H. Tulley, prior to August 23.

OPEN PAPER DRINKING CUP AND ROUND NESTING PAPER FOOD CONTAINER INDUSTRY. BUDGET AND BASIS OF CONTRIBUTION

The National Recovery Administrator has announced approval of the budget and basis of contribution to the same for the administration of the code of fair competition for the open paper drinking cup and round nesting paper food container industry.

The total amount of the budget is $42,120, covering the period from May 1, 1934, to April 30, 1935. The basis of contribution by members of the industry is one-half of one per cent of the net sales.

PAPER DISC MILK BOTTLE CAP INDUSTRY MODIFICATION PROPOSAL

The paper disc milk bottle cap industry, through its Code Authority, has submitted to the National Recovery Administrator for approval a modification of its code of fair competition providing for a code budget and the basis of contribution to the same by members of the industry.

Notice was given that any criticisms of, objections to or suggestions concerning this budget or the basis of contribution must be submitted to Deputy Administrator David H. Tulley, room 209 National Savings and Trust Building, Washington, D. C., prior to Monday, August 20, 1934.

At the same time, the Code Authority filed for approval its budget and the basis of contribution.

The total amount of the budget is $30,061, for the period from February 1, 1934 to January 31, 1935. The basis of contribution is fixed at three-quarters of one percent of the net sales.

The same date and place for filing objections to the budget and basis of contribution apply as in the case of the modification proposal.

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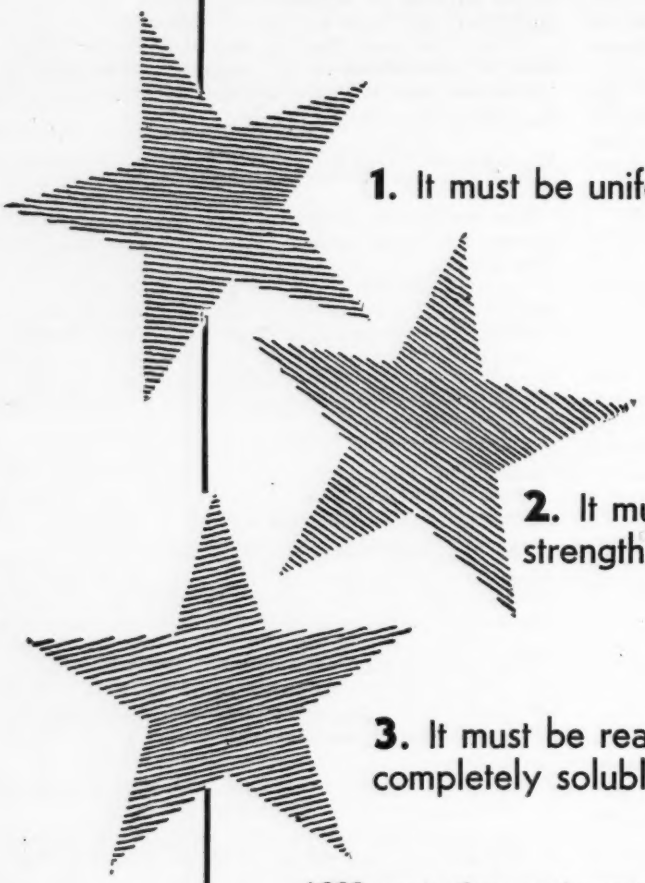

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Section of the
Technical Association of the Pulp and Paper Industry
Edited by Ronald G. Macdonald, Secretary

The Correlation of Research with Mill Operation*

By Clark C. Heritage[1]

An operating man takes standard methods, standard materials, the machines available and men available and turns out a product—of standard quality at standard cost delivered when the customer wants it.

A research man secures the facts with which to answer a problem. He is not particularly interested in the exact nature of the answer except that it be correct, economical, practical.

The operating man's success depends on doing the same thing in the same way, achieving the same result day after day, with gradual improvement to be expected.

The research man's success depends largely on making major changes for the better in methods, materials, machines, quality and cost.

The operating man has built up his knowledge through years of experience, which might be called research by experience. Every operating man makes observations of facts every day, and sooner or later these crystallize into generalities which become the basis for his actions as operating problems are encountered.

The research man builds his knowledge through planned experimentation, during which he measures and controls all variables and measures the effect of these variations by methods as precise as he can muster. The research man, being concerned only with his particular problem, accumulates his factual knowledge in a matter of days or weeks.

It is but natural that since research and operation are apparently so different in nature and purpose, that a major problem is involved in harnessing them together for the common good. We will now discuss certain phases of this relationship, the fundamentals of it, rather than the details, which largely take care of themselves if the principles are right.

Use Requirements of the Product

It is important first of all that all concerned have a clear picture on two matters which are vital to this relationship:

1. What should be the nature of the products manufactured upon which the business of each company depends?

2. What simple fundamental relationships are involved in manufacturing those products?

With respect to the first matter, the nature of the products manufactured, the business of any company is successful only if the products satisfactorily meet the requirements imposed upon them by the uses to which they are put. We call these the use requirements of the product. Since paper as it comes from the mill is in many cases converted to the product actually consumed, it is necessary to consider not only the use requirements imposed by the customer but also those by the converter. These two gentlemen are the real bosses of all of us because their favor must be won and held if any of us are to prosper.

Use requirements may be stated in ordinary descriptive language and involve a reasonably precise and complete understanding of the manner in which the article is used and the conversion process employed to create it. That appears to be a simple and straightfordward proposition, but actually it is sometimes a considerable contract.

A complete listing of the requirements of use necessitates close observation and a common-sense study of what the customer expects or is pleased with, and what the converter does. This list should be complete so far as the important requirements are concerned, for if any are missed, this fact is quite certain to cause trouble sooner or later. These use requirements do not require technical description, merely ordinary everyday language.

Requirements of Magazine Paper

Since use requirements are the starting point in our effort to ascertain what the nature of the products manufactured should be, let us stop for a moment to consider, as an example, a copy of a magazine. What requirements does the ultimate consumer place upon a magazine so far as paper is concerned.

1. It should appeal as much as possible to the senses, particularly sight.
2. It should handle easily.
3. It should be easily readable.
4. It should withstand whatever handling is given to it.
5. In some cases, a certain degree of permanence may be required.

If time were available we could list in like manner the use requirements imposed by the printer, of which there are perhaps four times as many.

Now we approach the next step in determining what the nature of our product should be. It is desired to identify and describe the sheet of paper which will satisfactorily meet the requirements as listed. It is believed that any material may be identified for all practical pur-

TAPPI Section, Page 65

* Presented at the annual meeting of the American Pulp and Paper Mill Superintendents Association, Poland Spring, Me., June 20-22, 1934.

[1] Member TAPPI, Manager of Coating Division, Oxford Paper Company, Rumford, Me.

poses by the values of its various properties, and in the case of paper, at least so far as present knowledge goes, we are dealing almost entirely with physical properties. There is always an interrelation between the use requirements of a product and the properties of that product or of the material for which the product is made. One use requirement may be related to a number of properties and one property may contribute to several requirements. The next step, therefore, involves the selecting and defining of specific properties and their relation to the requirements of use. The properties may be either empirical or fundamental in nature, but in either case measurable with adequate precision simply and rapidly by suitable instruments and methods.

Let us return for a moment to the first requirement we listed imposed by the purchaser of a magazine. It should appeal as much as possible to the senses, particularly sight. The properties involved are almost obviously color, both hue and brightness; degree of polish, degree of smoothness, and cleanliness, and in like manner we could go through the other requirements, as, for example, ability to handle easily where the properties of weight, bulk and limpness or stiffness are encountered.

Determination of Values

Now when we have selected and defined the appropriate properties, the next step in our work to determine what the nature of our product should be, concerns our ability to determine the values of those various properties as exhibited by any specific sheet of paper. It is always surprising when one gets to this point to find how few satisfactory standard test methods are available. It is fairly simple to carry out a piece of research if the test methods are available, but development of these methods oftentimes requires the best talent obtainable. Some may be set up in a matter of days, others require years to perfect. For example, the determination of tearing strength is simple and well known, whereas the determination of smoothness is as difficult as any encountered.

The Specification

Now we approach the final step in establishing the nature of the products to be manufactured. Each requirement of use is fulfilled by building into the product those corresponding specific properties to such an extent or value as necessary to meet the particular use requirement under consideration, always with the proviso that price is considered. Values may be required which are high or low or optimum. Once these values are completely established we have a manufacturing specification which defines with reasonable precision what we must strive to manufacture, and if the work has been correctly and carefully done we may be fairly certain that the product will perform satisfactorily in use so long as the original use requirements do not change. Here we have the first fundamental to correlation of research with mill operation.

Knowing as precisely as possible the nature of the product which is to be manufactured, the second matter which should be understood clearly may now be discussed. This concerns the simple fundamental relationships between materials, process and product in the manufacturing operations.

Every manufacturing step begins with a material which may be either a raw material or an intermediate product. This material, as in the case of the finished product, can be completely identified and characterized by its properties and its composition, provided the methods are available to do so. The term properties is used in its broadest sense, including not only the usually understood chemical and physical attributes but also behavior under any given set of conditions which may be imposed.

More or less fundamental properties are employed wherever our knowledge permits us to do so as in identifying or evaluating a limestone. However, when our knowledge does not permit us to proceed in this manner, then we attempt to characterize our material by imposing an arbitrarily selected process as in the evaluation of a sample of wood by pulping or of pulp by refining.

Process Variables

Every manufacturing operation takes a starting material and imposes upon it a manufacturing process. In analagous manner to characterizing the material by its properties, the process is characterized by the process variables and the values or locations at which they are held as the process proceeds and is completed. There are many varieties of process variables. Some are called independent variables. In any combination of independent variables each may be varied by itself without reference to the others, as, for example, the consistency and the temperature of refining. A great many variables are unavoidably tied together so that individual ones cannot be varied without changing others. Thus pressure, temperature and concentration of acid are dependent variables in the sulphite pulping process. Then, too, we have process variables which may be varied readily over a wide range merely by deciding where we desire to place them. Others are directly related to the machine employed and cannot be varied readily or, in some cases, are inflexibly located by the design of the machine itself. The manufacturing process must, of course, employ some type of equipment or machine to contain the material in process and to function in carrying out the operation. It is obvious, therefore, that the nature of the equipment is closely related to certain of the process variables, of which some originate entirely from the equipment and some are dependent thereon so far as the range of possible variation is concerned.

It is by no means a simple job even to list all of the process variables and to define them. It is always helpful and sometimes essential to break down each manufacturing process into its basic elements or unit operations and analyze each separately. The paper-making operation consists roughly of eight unit operations, including screening, formation of a properly directed uniform swiftly flowing sheet of dilute stock, formation of the fibers, suction filtration, wet pressing, drying, dry pressing or calendering and formation of the finished roll. Although the process variables of the paper-making operation cannot be precisely separated according to these unit operations, it simplifies the task to deal with each separately so far as possible. It is just as important not to miss any of the process variables in describing or studying a manufacturing operation as it is not to miss any of the use requirements of the product in establishing manufacturing specifications. It is oftentimes the one that is missed, that is important to the complete understanding of what happens during the process.

The principal result of imposing a process upon a material or group of materials is an end product, which may be the finished material ready for market or again only an intermediate product. This end material is again completely identified and characterized by its properties and its composition, provided the methods are available with which to work.

We have now covered the second fundamental to correlation of research with mill operation, namely, an understanding of the relationship between starting materials, processes and end products.

We are now ready to view in a broad way the essentials of our daily task of manufacturing paper whether our

work lies in research or in mill operation. The business depends upon marketing a product satisfactory in use. The use requirements govern the properties of the product and make possible precise manufacturing specifications. To produce the product we employ a number of manufacturing operations, each of which uses a starting material, capable of being completely defined by its properties and composition, and converts this starting material to a finished material by a process which is defined or identified by its variables, each of which presumably is placed at that value which is optimum for the result desired. If each of us could produce complete manufactuirg specifications for our product with adequate methods of evaluation, and if each of us knew all the properties of our materials and their effects upon the final product, and all the process variables and their effects upon the final product, one of the largest fields of research would cease to exist. A clear understanding of the relationships involved beginning with the use requirements of the marketed product and ending with the properties and composition of the initial raw materials is essential to a successful correlation of research with mill operation.

We have been considering the more technical aspects of coordination of research with mill operation. With this as a background let us now consider the more practical features underlying the accomplishment of this correlation.

Selling the Value of Research

Briefly the principal key to this correlation is a matter of selling the value of research to the organization involved. This selling proposition begins at the top of the company rather than at the bottom. If the entire burden of selling research to the organization is placed upon the research man, he must be of unusual character and exceptional personality to succeed. The board of directors should first convince themselves that research when properly organized, executed and correlated, results in substantially increased profits. If this is true, as the experience of many large companies has demonstrated beyond any reasonable doubt, they are obliged to provide for this activity and accordingly convince the management of its utility and necessity.

Following this, successful correlation of research with mill operation, lies in the attitude of management itself. If management is doubtful or somewhat skeptical of the value of research, no further step should be taken until this doubt is removed. One of the best means of so doing is the visualization of the lines along which the research work may progress. The following classification of the fields of research is useful in such a visualization:

Fields of Research

1. Sales Development

Work in this field has for its objective the production of finished products of uniformly superior quality, products which more completely satisfy the uses to which they are put. Thus we have

1. Study of use requirements and formulation of precise manufacturing specifications for existing grades.
2. Development of satisfactory methods of evaluation directly related to use requirements for existing grades.
3. Studies of the process variables in the various manufacturing steps so that the manufacturing specifications may be regularly and adequately met.
4. Studies of the starting materials, their properties and composition with relation to the process variables and the manufacturing specifications for the end product.
5. Development of satisfactory methods of controlling, indicating and recording the values of the process variables and the properties of the end products.
6. Development of suitable methods of evaluating materials in process.
7. Production of improved quality in the grades constituting the regular line.
8. Production of new grades analagous or closely related to those already made.
9. Elimination of customer complaints and dissatisfaction arising from defective or unsatisfactory quality.

2. Cost Reduction

Work in this field has for its objective a reduction in the final cost of the delivered paper and may be along any of the lines of using less expensive materials or services or transportation, decreasing the amount of such materials or services used, increasing yields or production rates, and eliminating operating troubles and nuisances. Much of the work which may be done as sales development also results in cost reduction and such work may be classified in either place depending on the major emphasis.

3. New Sources of Profit

Work in this field involves strictly new materials or new processes for the manufacture of old products, or the production of radically new products, the utilization of by-products and similar matters.

If the fields of work outlined in this classification do not appear attractive to management, then research activities should not be considered further. If, however, they do appear attractive but management is still doubtful of the dollars and cents value, then a study of the experiences of other companies who have successfully practised and correlated research is in order. This will show that the securing of valuable research results is a matter of properly selecting and organizing the staff, of planning and executing the program, and of building and maintaining within the organization a clear conception of objectives to be arrived at through unity of viewpoints and effort, with respect to the work to be done. We have in the proper attitude of management the third fundamental to correlation of research with mill operation.

The Research Staff

Next let us consider the importance of the proper attitude of the research organization itself. This may be covered in one very short sentence. Research is primarily a service function. Research of itself does not make profits. It is valuable only when someone else puts the facts it develops to work Too often a research organization becomes so sold on itself that it comes to believe that it is solely responsible for the success of an undertaking. This is seldom the case and such an attitude is apt to be fatal to successful correlation with operation. The attitude of a research organization depends on many factors, a few of which we will discuss briefly.

The selection of the staff members with respect to personal attributes is very important. The honesty, sincerity and loyalty of each should be above question because they are called upon to establish confidence in the minds of those whom it is their business to serve. They are fact finders for the whole organization and as such must be straight thinkers and straight shooters. Research men should be open minded for refusal to meet members of other groups half way in their ideas or convictions will

go far in blocking correlation of research work. They should have an inexhaustible supply of perseverance for the work is often tedious and the results disappointing. Tact and diplomacy are essential attributes.

The organization of the research staff affects its attitude. The groups into which it is divided should be selected so that all the fields of work are covered in which it is expected to function. Thus one group may cover the field of use requirements and finished product specifications, another the paper-making process including refining, another bleaching and pulping, another fibrous raw materials. Each group then knows its position in the organization and its responsibilities, and may proceed to make its contacts with confidence. The leader of each group should be outstanding in the field covered by his group and bend every effort to so establish himself. By such an organization research and mill contacts are largely between the same individuals which has a decided stabilizing influence upon the correlation of effort.

The attitude of the research organization is also affected by the planning of its work. The nature of this planning will be discussed more in detail later, the point to be made here concerns principally the adherence to an established program for a reasonable time, the avoidance of a multiplicity of minor interruptions and the spreading of the staff so thin over so many problems that the morale of the force may be seriously impaired. It is not unusual to find that, as the utility of research work is recognized, the problems demanding answers multiply more rapidly than the capacity of the staff can absorb them. This situation is further complicated by shifting priorities. There are relatively few research men even among the more experienced who can always see short cuts to the answers desired and who can keep a number of problems in the air without dropping some. It, therefore, reacts to the disadvantage of the whole relationship, particularly with respect to the attitude of the research organization to permit a situation to develop such that work is half completed with minor problems taking a major portion of the time and effort of the research men.

A reasonable amount of encouragement plays a considerable role in the proper attitude of the research organization. The tactful, but nevertheless positive, backing of management has already been discussed. Certain courtesies are helpful such as an invitation to the proper research man to attend any important conferences for discussion of specific mill or company problems regardless of whether or not a corresponding research problem may be active at the time. Enthusiasm may not always continue to come from within the research department or any department for that matter. Recognition of research as a major activity, the utilization of research results as made available and the giving of credit for successful work done are common means of maintaining enthusiasm and providing encouragement. We have in the proper attitude of the research organization the fourth essential to successful correlation of research with mill operation.

Attitude of Operating Staff

Now let us consider the importance of the proper attitude of the operating staff. It is one of the peculiarities of average human nature that although we live in a world of unending change, we tend to resist changes which affect us as individuals. It is not astonishing that an operating organization whose function is to perform each day in a standard manner, as nearly as possible like other days, should resist changes. This attitude if not carried to extremes is healthy since it serves as a check and balance. Although by no means all of the activities of a research staff are devoted to changes, nevertheless much of its work is of that nature. Let us discuss some of the factors which bear on correlation of these opposed views.

The selling of the value of research so far as the board of directors and the management are concerned is a job they may do for themselves—self selling—before the research staff is organized. The job of selling to the operating staff largely proceeds simultaneously with carrying out the research work during the first years of this activity.

The planning of the early research work to be undertaken, is a most important factor in this selling job. Creating interest in research work and arousing the desire to benefit by this service can usually be accomplished best by working on problems of improving the quality or uniformity of product, decreasing operating costs or eliminating operating troubles or nuisances. The operating staff is as a rule only too willing to accept a service which bids fair to improve immediately and directly the operating performance whereas a proposal to undertake the development of a new or radically different product or process would not meet with much if any enthusiasm. The early problems should not be too difficult or complex but rather certain ones may be selected which display the probability of early solution at material gain to the operating department. Likewise the early problems should not get too far removed from the use and properties of the finished product for all possible information must be built up in the field of use requirements and corresponding properties before the process variables and raw materials can come into the picture. For example it is quite useless to undertake studies involving the variables of pulping and the utility of various wood species until a thorough grounding is available in the nature of the finished product which is to be produced.

The planning of the research work not only in the early stages but also as standard practise is best a joint function of management, operation, research, and others. When a piece of research work is suggested by the operating staff and its justification is obvious or easily proven, and when the progress of the work is freely discussed in conference or committee, the creation of interest and maintenence of cooperation, follow more or less as a matter of course.

The attitude of the operating staff is directly affected by the degree of definite tangible value to the operating staff which can be easily seen and appreciated by them, resulting from the early research work done. Work which will fulfill this requirement is essential as the first part of the research program and especially should be avoided any use of research work as a check or control. Instead it must be purely a help and a service. The establishment of confidence by the satisfactory quality of the early results goes far toward insuring the future correlation of research with mill operation.

Research Policies

A business like system of formally authorizing research problems through an authorization request assists in the proper attitude of other departments towards the research department. Such an authorization request states in brief, simple language, the objective, the scope of the work, the general attack, the justification and the estimated schedule and expenditure. Such a system immediately puts the administration of research work on the same general plane as that of the production orders of the operating staff or the capital jobs of the engineering department.

Although some of the work of the research department

as it grows older must be of a secret nature, much if not all of the early work should be just the opposite. The research results should be given as much publicity as possible within the whole organization; and brief progress reports at regular intervals, placed in the hands of every interested party, put the results to work without delay and assist greatly in building the proper correlation within the entire organization. As a general rule there is a great deal too much secrecy thrown around the work of the research department. Regular conferences for constructive criticism during the progress of the work are valuable in unifying viewpoints and clarifying the objectives. These regular conferences lead later to almost daily informal discussions between the research staff members and others. When a piece of work has been used successfully, it is important that credit be given not only to the research staff who developed the information but to the operating staff or other departments who successfully used the information for the good of the company.

Finally, nothing is more deadly to the correlation of research with mill operation through the attitude of other departments, than the reporting of unreliable or inaccurate information. The research results must be precise, correct and dependable.

So far as this present discussion is concerned we have now covered the fifth and last major essential to successful correlation of research with mill operation, namely the proper attitude of the operating staff.

Summary

To summarize briefly, we outlined first two fundamental essentials: a precise knowledge of use requirements and their relation to properties and specifications; and the relations existing between starting materials delineated by their properties, the process described by its variables, and the end product again characterized by its properties.

With these conceptions as a background, the proper attitude of three groups was discussed: the attitude of management depending on having sold itself on the value of research in the abstract, the attitude of the research staff functioning as a service group, depending on the selection of the staff members, the organization of the group, and the planning of the work, and the attitude of the operating staff depending on the selection and practical value of the early research work, the establishment of confidence, the businesslike administration of the research department, and the proper publicity and credit for successful work done.

To Form Printing Research Institute

One of the outstanding features of the A. S. M. E. Fifth Conference of the Technical Experts in the Printing Industry to be held October 8-9 at the Ben Franklin Hotel, Philadelphia, is the organization of a Printing Research Institute, which is to be sponsored by the A.S.M.E. Printing Industries Division, but will take in all those actively interested in aiding printing research. Dr. A. C. Jewett, of the Carnegie Institute of Technology, is developing the plan of the institute. It is planned to have all out-of-town delegates attending the conference pay a registration fee of $2.00, which will be a subscription membership to the institute for one year and will include a copy of the Proceedings of the Fifth Conference. There has been considerable talk since the first conference, held four years ago at the Carnegie Institute of Technology, on the need of organizing a printing research group, but due to business conditions it seemed inadvisable to initiate it until now. The British delegaton attending the first conference returned to England and formed an institute there that has been doing interesting and useful work for several years. It has been decided that the new institute will start its activity as a clearing house for printing research information until such time as conditions warrant actively financing of printing research work.

The Fifth Conference, while being held under the auspices of the A.S.M.E. Printing Industries Division, will also have numerous other printing organizations cooperating. The program has been definitely decided on and among the subjects that will be presented are: The Photomechanics of Color Photography, Synthetic Rosins as a Process Roller Material, Rubber and Composition Plates, Quick Drying Inks, New Developments in Offset Printing, Photomechanical Reproduction of Offset Plates, Type Design and Matrix Cutting, New Developments in Color Rotogravure Printing, Printing of Metal Paper, Aquatone Process.

Authors have been selected for these papers, which are now in the process of preparation, also the discussions have been selected from the various aspects of these subjects. The technical program has been developd primarily by Lewis Trayser, assistant superintendent, Curtis Publishing Company, and those who have assisted in securing authors are: Joseph S. Pecker, V. Winfield Challenger, W. A. Meeks, John Clyde Oswald, Edward Epstean, Wm. C. Glass, Jos. M. Farrell, Burt D. Stevens, R. G. Macdonald and Edward P. Hulse.

Mr. Trayser announced that exhibits to be approved by the program committee on machinery and processes covered by the program topics will be shown in the rooms of the Ben Franklin Hotel during the meeting. Other special events such as plant inspection trips and inspection of the Franklin Institute are being planned.

R. S. Bracewell Gets Patent

[FROM OUR REGULAR CORRESPONDENT]

HOLYOKE, Mass., August 14, 1934.—Russell S. Bracewell, secretary of the Marvellum Company, has received a patent for an apparatus for coating or decorating papers and this has been assigned to the Marvellum Company. Technically it is described as follows:

In an apparatus for imparting a mutable design of color to a web of material wherein said color design is floated on a liquid carrier, a baffle plate mounted at an inclination to the surface of said carrier, means for conducting color to said baffle plate to flow down the same and form a film thereon, said baffle plate being so inclined and having its lower edge in sufficiently close proximity to the surface of the carrier so that the color film formed on the baffle plate flows with unbroken continuity onto the surface of the liquid carrier and means for guiding a traveling web of material into lapping contact with said carrier surface to take off the color design therefrom.

Canadian Pulpwood Situation

[FROM OUR REGULAR CORRESPONDENT]

MONTREAL, Que., August 13, 1934. — The shrinking wood piles of the pulp and paper companies and the revival of the export trade in lumber give promise that next winter will be the busiest season in regard to cutting operations in the woods since 1929. In this connection a statement by Premier Taschereau, of Quebec, is interesting. He states that stumpage dues for wood cut on Crown lands in the province next season will be higher than those charged last season. Last year stumpage rates were reduced in an effort to promote lumbering as an employment measure. This coming season the former rates will be restored. In New Brunswick preparations are being made for an active season in woods operations, both in respect to lumber and pulpwood.

A Glossmeter and Surface Texture Comparator

By Richard S. Hunter[1]

The principles of gloss measurement and a description of the Hunter Glossmeter are given. Characteristic gloss figures for various materials as measured by the Glossmeter are reported as well as a comparison of this instrument with the Ingersoll Glarimeter. Special emphasis is given to surface texture.

An instrument*(1)* which was designed to meet the demands of the paint industry for a simple, portable, inexpensive gloss meter may find further applications in the paper and printing field. It is the purpose of this paper to describe this instrument and its applications and to present conversion curves so that data on this new instrument may be compared with gloss data taken on the Ingersoll Glarimeter.*(2)* The Glossmeter seems to be particularly well adapted to the study of the gloss, texture, and finish of high gloss papers.

This instrument is a photometer which will measure the intensity of specular reflection of surfaces to which it is applied. The gloss value obtained is independent of the diffuse, or body reflection of the surface tested. For this reason a numerical gloss figure does not depend upon the color and brightness of the sample, but only upon the surface's mirror reflection. Thus, a black, a red, and a white of the same series of papers may be characterized by the same fundamental gloss value. In the same way, gloss figures on transparent and semi-transparent papers are determined by specular reflection figures which are independent of the transparency.

Description of Instrument

The Glossmeter is portable and self-contained, the illumination being obtained with a three cell frosted flashlight lamp and batteries mounted on the instrument. When in use, its black felt bottom is merely placed on the surface to be tested. It measures the gloss by comparing the amount of light specularly reflected from the test surface with the amount similarly reflected from a standard gloss surface of polished black glass. These are the two light beams compared by the observer in the pattern mirror field. As shown in the drawing (Fig. 1), each beam is taken from a white surface in the small light box in the back of the instrument. These two white surfaces at the top and bottom of the box are lighted by a frosted flashlight lamp which may be moved between them. The position of this flashlight lamp serves to determine the relative intensities of the sources of the two beams. The dimming of this bulb due to deteriorated batteries does not alter the gloss reading because the same lamp serves as light for the two beams. These beams issue from the source box through a single diaphragm where they cross. The beam which starts from the lower surface in the source box is reflected by the black glass standard down to the pattern mirror. The beam which starts from the top surface of the source box is reflected up to the pattern mirror from the test surface below.

Received May 21, 1934.
[1] Henry A. Gardner Laboratory, Washington, D. C.

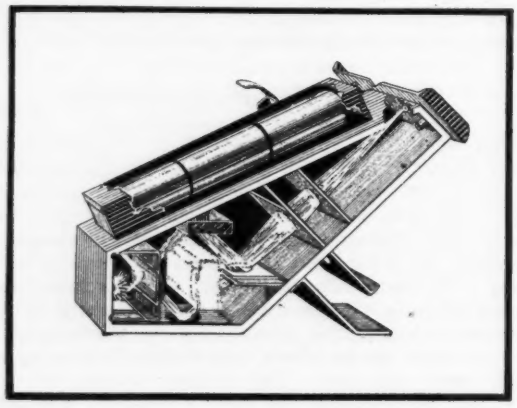

FIG. 1
Drawing of Hunter glossmeter showing interior details.

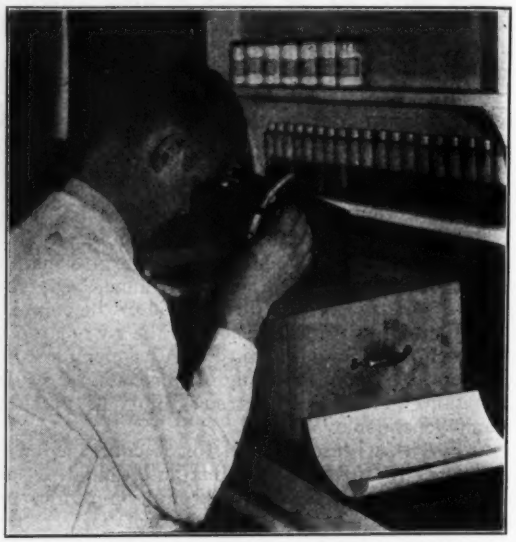

FIG. 2
Glossmeter in use in laboratory. Note scale on side of instrument, recording gloss directly.

The pattern mirror serves to combine the two beams. The observer views the pattern mirror and adjusts the light source until the two beams are equal in intensity. At this point, the ratio of intensities of the beams upon the gloss sample and standard is the exact inverse of the ratio of glosses.

Fig. 3 represents the pattern mirror field as it appears to the observer taking a reading. A pattern mirror is nothing more than a mirror from which certain areas of the silver have been removed. An object below the mirror is seen through the unsilvered portion to be in visual contact with a second object seen reflected from above the mirror. A lens is placed in front of the mirror to allow the observer to focus upon the pattern. This same lens keeps the observer from being disturbed by the texture of the surface while making a setting. It throws objects below the mirror out of possible focus. It also serves to concentrate the beam from the small source diaphragm upon the eyepiece. This lens is mounted in a slide so that it may be moved out of the beam to allow the observer to study the surface texture of the sample.

A direct reading gloss scale is mounted on the arm which

swings the lamp between the two white surfaces. This scale gives the gloss reading for a test surface when the observer sets the lamp to balance the pattern mirror field and make the lines disappear. Many surfaces tested will produce a non-uniform pattern mirror field, a field in which the pattern will not disappear quite evenly. To provide a reference point in the field at which to read such surfaces, the horizontal line in the left hand half of the mirror is cut. Making a balance around the center of the field instead of over the whole field, is very often necessary. The large field of the instrument makes such settings quite reliable, however, since the contrasts in parts of the field make for easier settings in the center.

The small rectangular box shown in dotted lines in the center of the instrument serves to carry spare light

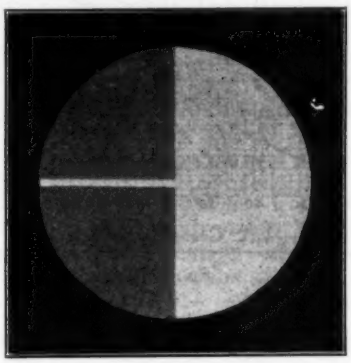

FIG. 3
Pattern mirror field as seen by the observer.

bulbs and keep unwanted light from the source out of the front section of the instrument. A special eyeshield may be turned in any direction to shield the unused eye of the observer.

Description of Surface Texture

Small elements of a test surface which are smooth and plane parallel with the plane of the surface reflect light specularly as a mirror. Such elements appear much brighter when viewed in the Glossmeter than elements not in the surface plane. By sliding the lens in the glossmeter out of the beam, surfaces under test may be studied by specularly reflected light and the smooth plane areas of a paper compared with those not smooth. This is the basis on which surface texture comparisons are made with the Glossmeter.

The white sources of the instrument are reflected from the test surface and standard as two small hemispheres. Comparisons are made between the perfect mirror image reflected by the black glass standard surface and the figure reflected in the test surface. Four paper texture types are drawn in Fig. 4. In 4a a newsprint texture is illustrated. This is typical of the large number of mat and machine finished papers which have no smooth surface and thus no bright specularly reflecting areas. Two coated printing papers are illustrated in 4b and 4c. 4b represents a more mottled finish while 4c possesses an even texture. In 4d the texture appearance of a sheet of glassine paper from a window envelope is drawn.

These surface textures vary greatly from position to position over any single sheet. In evaluating any texture type the reflected hemisphere of the standard side may be used to compare sizes and areas. Thus, the amount of unfinished area on a calendered paper can be estimated in terms of the area of the standard hemisphere. It is believed that these studies with the Glossmeter may be of value in determining the printing characteristics of paper.

The Gloss Scale

The gloss scale mounted on the arm of the instrument gives a direct reading of apparent specular reflection on a scale on which the 100 per cent perfect mirror would read 1,000. The polished black glass reflecting 5.6 per cent of the incident light at 45 degrees reads 56, and etc. Characteristic gloss figures on a number of papers and materials are presented in Table I.

TABLE I.—CHARACTERISTIC GLOSS FIGURES FROM THE GLOSSMETER

Cellophane	80
White glossy photo	56
Lacquer coated paper	45
Glassine paper	29
Super-calendered printing papers	9 to 14
Calendered papers	7 to 10
Black cardboard	1.9
Machine finished papers	4 to 5.5

If measurements were made on a black, a gray and a white surface, where each surface was known to have the same specular reflection, the gray would read about one unit lower and the black two units lower than the white. These are approximate magnitudes of the corrections which are due to the diffusely reflected light. A black surface reflects no diffuse light.

Comparisons of the Ingersoll Glarimeter with the Glossmeter

A Glossmeter determination is made up of the specular reflection factor at 45 deg. (S45 deg.) plus a diffuse reflection correction (D_H) which is determined by the effective size of the source of the instrument and the brightness of the sample surface. That is:

S45 deg. + D_H (D_H is always less than 2.)

The Gloss value into which Glarimeter readings are transformed is called the "per cent gloss" and is defined as being the percentage of specular reflection at 57.5 deg. (S57.5 deg.) in the total beam which comprises specular plus diffuse light. That is:

$$\frac{\text{S57.5 deg.}}{\text{S57.5 deg.} + D_I} \times 100$$

The ratio, $\dfrac{\text{S57.5 deg.}}{\text{S45 deg.}}$,

is known to be 1.52 and the source sizes of the two instruments are known to be (Glossmeter) 0.0025 hemisphere, and (Glarimeter) 0.0059 hemisphere. If one assumes that the specular reflection distribution from the surfaces are sharp and distinct as in a mirror, it is possible to compute what the relationship should be between Glarimeter and Glossmeter readings.

In the following discussion only one diffuse reflectance, the average paint and paper white of 80 per cent is considered. The usual departures from this reflectance in whites are not great enough to warrant separate relationships.

The theoretical curve which gives the Glossmeter-Glarimeter relationship, provided the assumption mentioned above is valid, has been computed and plotted in Fig. 5. In this same figure are plotted values for a number of white paper samples as well as some white paints which were read on the two instruments. A glance at the experimental data plotted in Fig. 5 shows that determinations with the two instruments agree very well on the theoretical curve above 85 per cent gloss, but that below this point, the assumption of unidirectional specular reflection is not valid.

Fig. 4. Gloss conversion chart between Hunter Glossmeter and Ingersoll Glarimeter.

It is obvious from the figure that there is no consistent relationship between values from the Glossmeter and Glarimeter. For low gloss surfaces the paint values and the paper values have separate curves. These differences are apparently due to the different particle shapes of the surface elements. This curve offers convincing evidence of the necessity of gonio-photometry *(3)*, or distribution photometry about the angle of specular reflection, to represent complete and unique descriptions of gloss. Different distribution curves about the angle of specular reflection give different relative Glossmeter and Glarimeter values. The Glossmeter could be designed with source size and angle of reflection equivalent to that of the Ingersoll Glarimeter and this instrument would then give results which should be directly comparable with those of the Glarimeter.

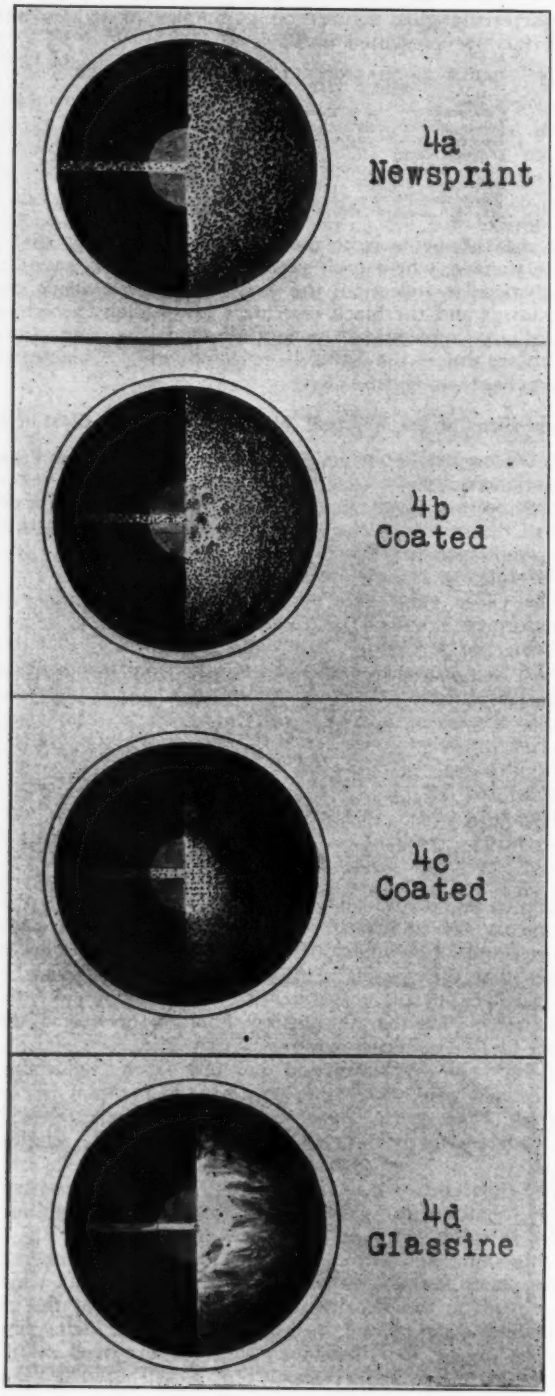

FIG. 4
Four types of surface texture as seen in glossmeter.

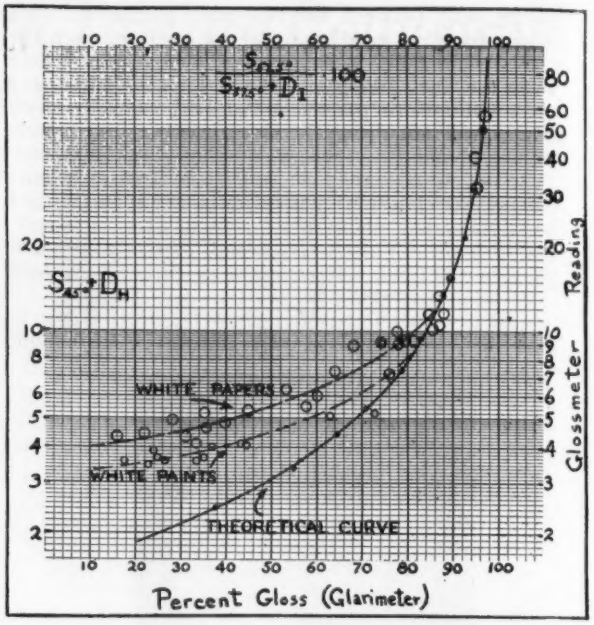

FIG. 5

The Gloss values plotted in Fig. 5 having Glarimeter readings below 60 per cent were those of machine finished papers, between 60 per cent and 80 per cent were those of calendered papers, and above 80 per cent super-calendered papers.

Conclusion

In conclusion it can be said that the Glossmeter makes more reliable distinctions than the Glarimeter on white surfaces above 80 per cent Glarimeter value. Below 70 or 60 per cent, the Glarimeter seems more reliable. The curves of Fig. 5 will enable the user of a Glossmeter to determine accurate per cent gloss figures for his high gloss papers. Further, it will be possible to take Glossmeter readings on colored and transparent papers which the Glarimeter will not measure. If desired, these readings may be converted into Glarimeter per cent gloss values for the white papers having the same specular reflection.

The study of surface texture in specularly reflected light also offers some interesting possibilities, since the specular components of reflection come from surface elements of the paper which are optically parallel to the plane of the paper.

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(3) J. Optical Soc. Am., 6:140 (1932).

Pulp and Paper Industry Literature Review

Abstracts of Articles and Patents Compiled by the Abstracts and Bibliography Committee of the Technical Association of the Pulp and Paper Industry, A. Papineau-Couture, John F. Ohlson, C. E. Peterson and Clarence J. West, Chairman

Copies of United States Patents can be obtained from the United States Patent Office, Washington, D. C., for 10 cents each. Send currency, not stamps.

Paper Specialties

Method and Apparatus for Making Re-Inforced Sheets. William H. Cannard. U. S. pat. 1,934,589 (Nov. 7, 1933).—The apparatus comprises a traveling screen above which are mounted two pulp containers for depositing pulp layers on the screen. The two containers are some distance apart, and between them are mounted a series of bobbins of re-inforcing thread. Means are provided to draw the threads from the bobbins and apply them between the two pulp layers, and to impart a wavy effect on the threads.—A. P.-C.

Stencil Sheet. Louis E. Fuller. U. S. pat 1,935,875 (Nov. 21, 1933).—Open fibrous material such as Yoshino paper is impregnated with protein such as gelatin and a higher fatty acid anhydride such as stearic anhydride, and glycerin.—A. P.-C.

Gummed Paper. William W. McLaurin. U. S. pat. 1,940,363 (Dec. 19, 1933).—The paper covers a transparent paper coated with an adhesive consisting of a high percentage of dextrin and a lower percentage of gelatin, which normally is dry and non-tacky, but is adapted to adhere to glass and can take a great variety of printing inks without causing them to run.—A. P.-C.

Carbon Paper. M. Bandli. Belg. pat. 398,163 (Sept. 30, 1933).—Dyestuffs dissolved in oleic acid are mixed with lampblack, and the paste is mixed with a solution of a special insulator.—A. P.-C.

Method of Uniting Waxed Paper. Stuart Moore assignor to Dixie Wax Paper Co., Inc. U. S. pats. 1,940,559 —1,940,561 (Dec. 19, 1933).—An adhesive is applied to the portion of the wax-coated paper to be united; the portion having adhesive is heated so as to melt the wax and permit the adhesive to flow into contact with the paper and into the pores thereof, and heat is then withdrawn to permit solidification of the wax. The whole operation is carried out substantially without the application of pressure. *No. 1,940,559* covers the method; *No. 1,940,561,* the apparatus; and *No. 1,940,560,* application of the method to a machine for making waxed paper bags. —A. P.-C.

Carbon Papers. Unichem Chemikalien-Handelsgesellschaft A.G. Brit. pat. 395,225 (July 13, 1933).—Aliphatic alcohols of high molecular weight, such as cetyl alcohol, are used as substratum for dissolving dyes for copying or carbon papers.—A. P.-C.

Report on the Manufacture of Newsprint from Southern Pine Under Commercial Operating Conditions. L. C. Anderson. Paper Trade J. 98, No. 9: 31-32 (March 1, 1934).—Report by an observer on the commercial run of newsprint made at the Thorold mill of Ontario Paper Co. from groundwood and sulphite made from southern pine in semi-commercial equipment at Savannah, Ga.—A. P.-C.

Curl in Sulphite Papers. W. A. Ketchen. Pulp Paper Can. 35: 103-109 (Conv. Issue 1934).—An account of various curl troubles encountered at the mill of Fraser Companies, the means taken to remedy them and the success which attended these efforts. Curling is essentially due to two-sidedness of the sheet with respect to moisture content, and the trouble can be very largely eliminated by adjusting conditions so that both sides of the sheet have the same moisture content when it leaves the paper machine, and also when it is used, either by the printer or by the converter.—A. P.-C.

Photographic Paper. Paul C. Seel assignor to Eastman Kodak Co. U. S. pat. 1,933,824 (Nov. 7, 1933).—Each side of the base paper is covered with a waterproofing coating containing a polymerized vinyl compound.—A. P.-C.

Paper. Brown Co. Brit. pat. 396,980 (Aug. 17, 1933).—Paper containing viscose is deodorized by treatment with an oxidizing agent, *e.g.,* chlorine as a gas or in solution, ozone, sodium hypochlorite, sodium peroxide, hydrogen peroxide. Either the finished paper or paper during process of manufacture may be treated. The paper may be partially dried before treatment.—A. P.-C.

Impregnating Fiber Conduits. Philip P. Gray and Ernest E. Werle assignors to Fibre Conduit Co. U. S. pat. 1,930,646 (Oct. 17, 1933).—The fiber conduit is immersed in impregnating material such as melted pitch in three successive stages, the second of which is at a lower temperature than the first and third stages.—A. P.-C.

Vulcanized Fiber. Ernst Becker and Karl Letters assignors to I. G. Farbenindustrie A. G. U. S. pat. 1,-935,692 (Nov. 21, 1933).—Paper is parchmentized with a zinc chloride solution containing up to about 3 per cent of an alkali metal or an alkaline-earth metal chloride or ammonium chloride, which serves to regulate the specific gravity of the product.—A. P.-C.

Waxed Wrapping Paper. Carroll B. Wilkins assignor to Nashua Gummed and Coated Paper Co. U. S. pat. 1,938,949 (Dec. 12, 1933).—A product of substantial opacity and high gloss comprises a body of paper stock associated with material of substantially different refractive properties such as titanium oxide, and treated with colorless wax.—A. P.-C.

Indented Wrapping Paper. Charles A. Bahr assignor to William H. Ellis, Jr. U. S. pat. 1,941,783 (Jan. 2, 1934).—The object of the invention is to provide mechanism and a method for forming indented paper in such a way as to provide sheets which have no matching indentations, and to paste the sheets together, all on one machine. This is effected by providing, at a suitable point in the drier section of the paper machine, two sets of indenting rolls having different "patterns." They are mounted in such a way that only one set can act on the paper at the same time, though the sheet passes through both sets; when the upper roll of one set is lowered to co-act with the corresponding lower roll, the upper roll of the other set is raised, and vice versa.—A. P.-C.

Hot-Pressed Cellulosic Product. Adriaan Nagelvoort assignor to Delaware Chemical Engineering Co. U. S. pat. 1,939,404 (Dec. 12, 1933).—Products such as those of pulpboard are formed with an addition of from 5 to 20 per cent of sulphur in water-repellent form and of

a fineness of about 200 mesh, substantially free from peptizing agents for sulphur, the sulphur serving to give improved strength.—A. P.-C.

Method of Drying Moistened Wax-Coated Paper. Charles C. Willis assignor to John Waldron Corp. U. S. pat. 1,936,651 (Nov. 28, 1933).—Paper is waxed on one or both sides and is immediately passed through a bath of cold water to harden the wax. On leaving the water bath the sheet is passed through a rubber-covered press. The remainder of the water is removed by sharply reversing the direction of travel of the paper several times, so as to throw off the water by centrifugal force, or by blowing air at right angles to the travel of the paper.—A. P.-C.

Machine for Coating Paper. Ross S. Phillips assignor to The Cleveland Liner and Manufacturing Co. U. S. pat. 1,937,164 (Nov. 28, 1933).—Aluminum flakes or powder is mixed with a binder such as nitrocellulose compound and applied to a moving web of paper. The treated web is subjected to the action of a toothed member which is reciprocated transversely of the web so as to effect a shingling or interleaving of the flakes into a layer of uniform thickness. The solvent is removed by suitable drying treatment.—A. P.-C.

Web Tensioning Apparatus for Paper Coating Machines. Donald B. Bradner assignor to The Champion Coated Paper Co. U. S. pat. 1,949,237 (Feb. 27, 1934).—The device consists of a pair of suction rolls one on the entry side of the coating roll and the other on the exit side. The two rolls are run at slightly different peripheral speeds, so as to exert a tension on the web passing over the coating roll sufficient to stretch it evenly across its full length. Means are provided for regulating the speeds of the suction rolls.—A. P.-C.

Decalcomania Paper. John MacLaurin. U. S. pat. 1,951,620 (March 20, 1934).—A sheet of backing paper is coated with rubber latex. A flexible facing sheet is secured releasably to the backing sheet by pressing while the coating is still sufficiently tacky to form a relatively weak bond. The opposite side of the facing sheet is coated with a material suitable to adapt the sheet to decalcomania printing.—A. P.-C.

Apparatus for Coating or Coloring Paper. Rusell S. Bracewell. U. S. pat. 1,946,831 (Feb. 13, 1934).—The coloring matter is fed to the center of a horizontal disc which is rotated at a high speed to discharge the color from the periphery in a fine spray against the surface of a web of paper which is moved axially of the disc and transversely curved at the point of application of the color to conform to the curvature of the disc.—A. P.-C.

Building Product and Method of Making Same. Thomas Robinson assignor to Lancaster Asphalt, Inc. U. S. pat. 1,941,491 (Jan. 2, 1934).—A multiple-ply sheet (preferably containing an odd number of plies) is formed of fibrous material (asbestos, cocoanut fiber, wool felt scrap, bagasse, wood fiber, etc.) and a plastic (asphalt of sufficiently high melting-point to withstand solar heat), with or without the addition of filler (clay or cinders), the inner plies having a higher proportion of plastic to filler than the outer plies. Each ply is formed by feeding a mixture of fiber and plastic between a pair of rolls that forms it into a sheet, the sets of rolls being arranged so each ply, as it is formed, is delivered to the next succeeding set of rolls to be combined directly with the next ply. The web is passed between molding rolls that convert it into either strips or individual shingles, having one end (of the shingle) or one side (of the strip) thicker than the other.—A. P.-C.

Method of Making Composition Roofing. Charles E. Volkhardt assignor to The Barrett Co. U. S. pat. 1,952,828 (March 27, 1934).—Tapered composition shingles are made by continuously feeting two long strips of roofing felt in spaced relation, continuously inserting a body of asphalt between them, and compressing and molding the strips and asphalt to form a transversely tapered long shingle strip which is cut transversely into individual shingles.—A. P.-C.

Corrugator. Samuel M. Langston. U. S. pat. 1,943,080 (Jan. 9, 1934).—This is an improvement on Sieg's U. S. pat. 1,835,816 (Dec. 8, 1931) and Langston's U. S. pats. 1,186,998 and 1,642,782 (Sept. 20, 1927). In order to prevent adhesive from coming into contact with the corrugating surfaces of the corrugating rolls, the second corrugating roll is provided with one or more circumferential grooves, in each of which is disposed a guide member which pushes or guides the corrugated paper away from the corrugating surface and into contact with the adhesive-applying roll.—A. P.-C.

Spray Treating of Web Material on the Paper Machine. Edmund P. Arpin, Jr. U. S. pat. 1,938,790 (Dec. 12, 1933).—Paper is coated with wax by spraying the latter by means of the nozzle described in U. S. pat. 1,880,065 (Sept. 27, 1932), which is preferably mounted between the drier section and calender of the paper machine.—A. P.-C.

Method of and Apparatus for Impregnating and (or) Surface Coating Paper. Carlton W. Crumb assignor to Oliver United Filters Inc., and Frank M. Sanders assignor to St. Clair Rubber Co. U. S. pat. 1,939,842 (Dec. 19, 1933).—The paper is passed around a hollow roll which rotates partly immersed in a bath of a rubber composition. At the points where it enters and leaves the bath, the sheet is supported in contact with the roll by means of an endless supporting belt (*e.g.*, felt or wire) but during most of its travel in the bath the supporting belt is removed from contact with the paper to enable the bath to filter through the sheet.—A. P.-C.

Safety Paper. Frank S. Wood assignor to Inkset Safety Paper Co. U. S. pat. 1,939,378 (Dec. 12, 1933).—Safety paper is made in one continuous operation comprising at least approximate dehydration and subsequent application and absorption of about 8 per cent water, decolorized iodine, tannic acid and acetic acid or equivalent substances, no further drying being required.—A. P.-C.

Apparatus for Treating Paper. William R. Redd. U. S. pat. 1,949,330 (Feb. 27, 1934).—In the manufacture of articles such as paper towels or napkins, the paper is subjected to the action of ultra-violet rays and ozone before being converted, and to a second treatment with ozone after being made into towels or napkins.—A. P.-C.

Fibrous Composition and Process of Manufacture. Harry C. Fisher assignor to The Richardsons Co. U. S. pat. 1,949,249 (Feb. 27, 1934).—About 7 parts of bitumen and 3 parts of pulp are worked in a Warner-Pfleiderer type of mixer until the fibers are uniformly coated with the binder. The mixture is then worked in a beater with water at about 180 deg. F., with or without addition of a detergent such as "Kontakt" (sodium sulphonic acid salt), until the fibers are partly liberated from the asphalt. The material is then molded or is sheeted on a cylinder or a fourdrinier machine.—A. P.-C.

Fiber Sheet and Its Manufacture. Erwin H. Hussey. U. S. pat. 1,952,208 (March 27, 1934).—A mass of fibers is covered with a liquid adhesive so as to coat the individual fibers, and is agitated to loosen and separate the coated fibers. They are deposited in a sheet-like layer in loose and unfelted condition; the sheet is passed under a rotating leveling brush to remove high spots, and is dried to permit the adhesive to set.—A. P.-C.

Process and Apparatus for the Manufacture of Embossed Wall Papers. Norddeutscher Tapetenfabrik Hoelscher & Breimer. Belg. pat. 398,273 (Sept. 30, 1933).—Two or more webs of paper are passed through an adhesive-applying device and then between a pair of rolls where they are combined into a multiple ply sheet. The latter is passed through a combined embossing and coloring device and is finally dried.—A. P.-C.

Manufacture of Printing Paper. C. Winkler. Belg. pat. 398,260 (Sept. 30, 1933).—The paper consists of several plies, at least one of which is impermeable to printing ink. The central ply is made of strong stock containing elastic ingredients, and on both faces there are coatings suitable for printing.—A. P.-C.

The Use of White Water on Board Machines. F. C. Stamm. Paper Trade J. 98, No. 15: 39-40 (April 12, 1934).—A discussion of its advantages and disadvantages from a practical standpoint, showing that the concrete advantages and savings may often be more than offset by intangible drawbacks.—A. P.-C.

Artificial Board Suitable for Use in Automobile Tops, Etc. Clarence J. Strobel assignor to St. Clair Rubber Co. U. S. pat. 1,944,533 (Jan. 23, 1934).—A fibrous material such as celotex or the like is assembled with a paper facing and the fibers of both the underlying material and the facing are impregnated with a rubber composition which fills the surface voids in the body material and penetrates part way through the paper, and the rubber is vulcanized.—A. P.-C.

Manufacture of Transparent Cellulose Hydrate Foils, Their Properties and Applications. R. Weingand. Chem.-Ztg. 58, No. 19: 193-196 (Mar. 7, 1934).—After a brief historical introduction, the manufacture of transparent viscose foils is described. The greatest part of the output is used by the wrapping industry; since recent years, cellulose hydrate ribbons find increasing application in the hat industry.—C. J. W.

Manufacture of Cellulose Acetate Films According to the Dry Process. M. Ulmann. Kolloid-Z. 66, No. 1: 119-123; No. 2: 247-251 (1934).—A review of patents dealing with the pouring of cellulose acetate films according to the dry process.—C. J. W.

Chemical Tests for Transparent Papers. Plastic Products 10, No. 2: 60 (Feb., 1934).—Tests for differentiating the various types of transparent films, such as viscose, cuprammonium acetate and nitro, as well as gelatine films, are described.—C. J. W.

Manufacture of Photographic Paper. Papier-Ztg. 59, No. 19: 347-348 (March 7, 1934).—The preparation of the emulsion for coating photographic paper and subsequent processes, including packaging, are described. Cleanliness throughout is of prime importance; all processes are carried out in a dark red light.—C. J. W.

Stencil Sheet. D. Gestetner Ltd., London. Swed. pat. 78,808 (March 11, 1926).—J. F. O.

Process for the Manufacture of Cigarette Paper. Neuerburgsche Verwaltungsgesellschaft m.b.H., Cologne. Ger. pat. 591,744 (Nov. 10, 1931). The reason for the disagreeable biting odor in cigarette paper is due to the fact that the paper is generally alkaline while the pH value of the tobacco used in cigarettes is around 5.2. The object of this patent is to make the cigarette paper have the same pH as the tobacco by the addition of certain acids, such as oxalic acid.—J. F. O.

Process for the Preparation of Water-Proof Board or Water-Proof Paper. Benno R. Ruiss, Vienna. Aust. pat. 134,997 (May 15, 1933). In order to make the board or paper water-proof, it is impregnated with a material consisting of a mixture of wax soap and wax emulsion with aluminum sulphate.—J. F. O.

Process for the Manufacture of an Electro-Insulation Material, Resistant to Oil. Micafil A. G. Werke für Eelctro-Isolation, Zurich, Switzerland. Aust. pat. 135,348 (June 15, 1933).—J. F. O.

Process for Making Paper and Similar Materials Opaque, As Well As Objects Made Therefrom. H. J. Prins, Hilversum, Netherlands. Aust pat. 135,352 (June 15, 1933). The paper or the objects made therefrom is first treated with a rubber latex whose rubber content does not exceed 40 per cent. The layer of rubber or impregnation is dried until the rubber is made insoluble. The object is then treated with a mineral or plant wax or a mixture of both, and finally heated to the melting temperature of the waxes.—J. F. O.

Cigarette Mouth Piece Covering. Chemische Fabrik von Heyden, Akt. Ges. Radebeul. Aust. pat. 135,689 (July 15, 1933). The covering for the cigarette paper consists of a 0.01 millimeter thick band of cellulose ester and bronze powder.—J. F. O.

Process for the Manufacture of Board Which is Provided on One or Both Sides With aSpecial Coating. Alois Ederer. Graz. Aust. pat. 135,845 (July 15, 1933); addition to Aust. pat. 132,487.—J. F. O.

Arrangement for the Pouring and Pressing of Plates of Wood Fibers. Xylotin A. G., Thuis, Switzerland. Aust. pat. 132,885 (Nov. 15, 1932). Description of a collapsible form.—J. F. O.

Device for the Manufacture of Corrugated Board of Several Webs, Whose Corrugations Cross Each Other. Jacob Moll, Lucka. Ger. pat. 592,106 (Dec. 4, 1931); addition to Ger. pat. 578,439.—J. F. O.

Process for the Manufacture of Objects of Pulp Similar to Cork from Straw, Bamboo, Sugar Cane and Similar Materials. Adolf Basler, Berlin. Ger. pat. 592,572 (Dec. 7, 1930).—J. F. O.

Process for the Production of One and Two-Sided Finished Plates from Board Through Pressing and Drying. Karl Kubic and E. Saller, Prague. Ger. pat. 591,152 (April 22, 1932).—J. F. O.

Process for the Preparation of a Material Made Up of Many Layers of Wood Fibers. O. Herdey and F. Ruhlemann, Dresden. Ger. pat. 590,562 (Sept. 14, 1932).—J. F. O.

Process for the Preparation of a Transparent, Tough Paper Capable of Receiving Imprints for Artificial Plants and Flowers. J. Hoffmann, Czechoslovakia. Ger. pat. 592,524 (April 16, 1931). A paper free from ground wood is coated on one side with a mixture of cooked wheat starch, castor oil, glycerine, and if desired, a coloring material, dried at the usual temperatures and then coated on the other side and finally treated with dextrine to give the sheet a finish.—J. F. O.

Process for the Manufacture of Insulation Plates from Peat. H. Hallenberg, Viborg. Finn. pat. 15,405 (July 4, 1932).—J. F. O.

Insulation Plates and Board from Peat. H. Hallenberg, Viborg. Finn. pat. 15,406 (July 20, 1932).—J. F. O.

Insulating Bodies of Peat. H. Hallenberg, Viborg. Finn. pat. 15,417 (July 4, 1932).—A mixture of peat and pulp is used. And if desired the outer surface can be impregnated.—J. F. O.

Process for the Manufacture of Insulating Bodies from Fiberous Materials. Insulite Co. Finn. pat. 15,422 (Nov. 3, 1931). An asphalt of a high melting point is mixed with a fibrous material and finished with the application of heat and pressure.—J. F. O.

Machinery

Automatic Slab Barker. Anon. Pacific Pulp Paper Ind. 8, No. 2: 13 (Feb., 1934); Joseph Gruber assignor to International Wood and Sulphite Co. U. S. pat. 1,942,095 (Jan. 2, 1934); Can. pat. 333,616.—The slabs are supported with the bark uppermost and held firmly between an upper and a lower series of closely spaced, parallel, positively driven toothed feed rolls. The barking head is provided with a rotary knife which is shaped and constructed so that it will always tend to cut completely through the bark. There is provided a manually operated gauging means for controlling the depth of cut, and this is supplemented by an automatic positioning means which engages with and is positioned by the top of the slab which is being barked.—A. P.-C.

Arrangement for the Suspension and Drive Chain for Barking Drums. A. S. Myrens Verksted. Oslo. Nor. pat. 53,025 (Jan. 23, 1932).—J. F. O.

Device for Barking Drums. E. Orrmell, Kramfors. Swed. pat. 78,720 (Nov. 12, 1931).—J. F. O.

Device for the Barking of Wood. Per Foss, Velsen. Ger. pat. 589,550 (May 2, 1930).—J. F. O.

Portable Machine for the Barking of Logs. H. Stuve and H. Stuve, Malchow. Ger. pat. 591,538 (Aug. 19. 1930).—J. F. O.

Arrangement for Barking Drums. E. Orrmell, Kramfors. Swed. pat. 78,859 (Oct. 26, 1931). The drum is partitioned off so that a section of it receives fresh water. —J. F. O.

Concerning Drum Barking. W. Schmid. Papier-Fabr. 31, No. 45: 596-98 (Nov. 5, 1933).—A discussion of the improvements and progress made in the construction of barking drums. It was remarked that due to the great increase in friction and weight of the drum, the power required for the barking increases much faster than the capacity of the barker. The pros and cons for semi-barking in the forests are given, since, due to the displacement of drum barkers for knife barkers even for the production of very clean pulp, this barking in the forests is being done away with.—J. F. O.

Production of Wood Fiber Mass. Jonas Jonson. U. S. pat. 1,936,843 (Nov. 28, 1933).—Chips and water are fed into the bite between a feeding roll and a tearing and crushing roll, the peripheral speed of the latter being more than 75 times greater than that of the former.—A. P.-C.

The Pilot Digester. Anon. Paper Trade J. 98, No. 10: 34 (March 8, 1934).—A brief discussion of the merits of the pilot digester, which consists of a cylindrical vessel containing a basket for chips and connected to the circulation line of the large digester between the suction and the pressure side of the pump, so that the small 1000-gram charge is subjected to exactly the same treatment as the charge in the commercial digester.—A. P.-C.

Wood Chipping Machine. Carl Wigger and Reinold Bömcke. U. S. pat. 1,942,675 (Jan. 9, 1934).—The plane of the chute bottom right across the direction in which the logs advance is given a slight inclination towards the circumference of the knife-carrying disc.—A. P.-C.

Digester. James L. Greenwood assignor to National Carbon Co., Inc. U. S. pat. 1,932,457 (Oct. 31, 1933).—The lining is made entirely of carbon bricks.—A. P.-C.

Device for Automatically Cutting the Sheet on Wet Machines. Marius Louis Giraud. Fr. pat. 751,057.—The cutting element consists of a series of fine air or water jets, placed in a row inside the roll on which the sheet is wound, parallel to the axis and close to the surface. The nozzles can be reciprocated over a distance equal to the distance between adjacent nozzles. After it has been cut, the sheet is removed from contact with the roll by means of a bar which normally lies flush with the surface of the roll, but which is raised automatically above the latter when it is necessary to remove the sheet and falls back flush with the roll after the sheet has been removed.—A. P.-C.

Paper Machine. Sonbert Machine Co. (not Inc.). Fr. pat. 760,533 (July 24, 1933).—The patent relates to paper machines in which the sheet is formed on an endless wire which is passed around a perforated roll partly immersed in a stock vat. The top portion of the roll which is not immersed in the stock is covered with a hood which seals it from the air and which permits of placing the whole of the roll under a uniform vacuum.—A. P.-C.

Couch Rolls for Cylinder Machines. E. Peterson. Paper Trade J. 98, No. 13: 24-28 (March 29, 1934).—A discussion of the merits of rubber-covered couch rolls for cylinder machines.—A. P.-C.

Device for Automatically Regulating the Admission of Steam to Paper Machine Driers. Papeteries Navarre. Fr. pat. 748,859.—Regulation of the admission of steam to the driers is based on the temperature of the sheet at a suitable point in the drier section of the paper machine. The sheet at this point is passed over a bakelite roll around which is wound a spiral of flat nickel wire forming part of an electric circuit connected with indicating (and if desired, recording) means calibrated either in temperature or directly in moisture content of the sheet, and with devices for controlling the admission of steam to the driers. Means are also provided for cutting out the regulating mechanism when a break occurs at the driers and for cutting down the steam supply to just the amount necessary for maintaining the temperature of the driers when a break occurs at the wet end. When the sheet has been re-threaded, the regulating mechanism is automatically brought back to its normal operating position.

Drier Felt. Eduard von Asten. Brit. pat. 400,502 (Oct. 26, 1933).—The felt comprises a textile fabric impregnated with rubber latex, etc., so that part or all of the pores in the fibers and threads are closed while the interstices between the threads remain open.—A. P.-C.

The New Chipping Plant At Port Townsend. Anon. Pacific Pulp Paper Ind. 8, No. 1: 4-7 (Jan., 1934).—A description.—A. P.-C.

Two Chippers in Place of One. F. M. Roberts. Paper Ind. 15: 704-705 (March, 1934).—Description of a successful direct-connected motor drive for chippers, with an explanation of its merits.—A. P.-C.

Press for Thick Sheets of Pulp. Fibroplast G. m. b. H. Fr. pat. 748,989. In a board machine all the bottom baby press rolls are mounted on a common frame and all the top press rolls are mounted on a second frame pivoted to the first frame at a point near the wet end of the machine. Means are provided for regulating the distance and pressure between the top and bottom rolls as a group. —A. P.-C.

Device for Embossing or Marking Paper During the Course of Manufacture on the Paper Machine. André Dubout. Fr. pat. 749,978.—A suitable "marking press" is placed at a suitable point in the drier section where the paper is still sufficiently plastic. The bottom roll is covered with a relatively soft material, such as felt, rubber, leather, etc. The top roll may be expansible or may have a small endless belt passing around it, to which the desired designs are suitably attached. Electrical resistances are provided to heat the marking elements slightly at the point at which they come into contact with the sheet.—A. P.-C.

IMPORTS OF PAPER AND PAPER STOCK

NEW YORK, BOSTON, PHILADELPHIA AND OTHER PORTS

NEW YORK IMPORTS

WEEK ENDING AUGUST 11, 1934

CIGARETTE PAPER

American Tobacco Co., Indep. Hall, Bordeaux, 250 cs.; Champagne Paper Corp., Indep. Hall, St. Nazaire, 838 cs.; American Tobacco Co., Paris, Havre, 150 cs.; H. H. Strauss, Paris, Havre, 85 cs.; N. Y. Merchandise Co., Paris, Havre, 5 cs.; De Manduit Paper Corp., Manhattan, Havre, 144 cs.

WALL BOARD

Treetex Corp., Minnequa, Ornskoldsvik, 1740 bdls.

NEWSPRINT

Jay Madden Corp., Minnequa, Helsingfors, 274 rolls; Jay Madden Corp., Oakland, Bremen, 58 rolls; Clinton Paper Co., Manhattan, Hamburg, 102 rolls; ———, Manhattan, Hamburg, 129 rolls; Perkins Goodwin & Co., Hamburg, Hamburg, 425 rolls.

PRINTING PAPER

E. Dietzgen & Co., Hamburg, Hamburg, 37 cs.; Senefelder Co., Hamburg, Hamburg, 16 cs.

WRAPPING PAPER

Coy Disbrow Co., Pennland, Antwerp, 12 cs.

KRAFT PAPER

Walker Goulard Plehn Co., Manhattan, Hamburg, 478 rolls.

FILTER MASS

A. Giese & Son, Hamburg, Hamburg, 30 bls.; H. Reifenberg, Hamburg, Hamburg, 59 cs., 20 bls.

FILTER PAPER

H. Reeve Angel & Co., Inc., American Trader, London, 11 cs.; C. Schleicher & Schul Co., Hamburg, Hamburg, 10 cs.

DRAWING PAPER

Keuffel & Esser Co., American Trader, London, 1 cs.

SURFACE COATED PAPER

Gevaert Co. of America, Pennland, Antwerp, 42 cs.; Globe Shipping Co., Oakland, Bremen, 57 cs.; L. A. Consmiller, Manhattan, Hamburg, 1 cs.; Globe Shipping Co., Europa, Bremen, 9 cs.

METAL COATED PAPER

K. Pauli Co., Oakland, Bremen, 15 cs.

PHOTO PAPER

American Express Co., Hamburg, Hamburg, 40 cs.

TRACING PAPER

C. Bruning Co., Oakland, Bremen, 9 cs.

DECALCOMANIAS

Sellers Transportation Co., Hamburg, Hamburg, 7 cs.

TRANSFER PAPER

Hensel Bruckman & Lorbacher, Hamburg, Hamburg, 8 cs.

STENCIL PAPER

Chas. Happel, Pennland, Antwerp, 2 cs.

WRITING PAPER

———, Paris, Havre, 15 cs.

PASTE BOARD

Flexideal, Manhattan, Havre, 60 cs.

MISCELLANEOUS PAPER

E. Fougera & Co., Paris, Havre, 27 cs.; P. J. Schweitzer, Paris, Havre, 10 cs.; Moore Bros. Co., Manhattan, Hamburg, 12 cs.; Keuffel & Esser Co., Manhattan, Hamburg, 87 cs.; H. Reeve Angel & Co., Inc., Kungsholm, Gothenburg, 11 bls.; H. Fuchs & Son, Kungsholm, Gothenburg, 100 bls., 164 rolls; E. H. Sargent & Co., Kungsholm, Gothenburg, 1 cs.

RAGS, BAGGINGS, ETC.

———, E. Francqui, Antwerp, 66 bls. cotton waste; E. J. Keller Co. Inc., Jelling, ———, 200 bls. bagging; ———, Jelling, Antwerp, 63 bls. flax waste; ———, Jelling, Antwerp, 55 bls. rags; Royal Manfg. Co., Jelling, Antwerp, 184 bls. cotton waste; ———, Jelling, Havre, 200 bls. rags; G. A. Henshaw & Son, Artigas, Belfast, 122 bls. paper stock; M. Snedeker Corp., Artigas, Belfast, 257 bls. paper stock; ———, Clairton, Manchester; 69 bls. cotton waste; J. Cohen & Son, Clairton, Manchester, 33 bls. rags; E. J. Keller Co., Inc., Black Heron, ———, 51 bls. cotton waste; E. J. Keller Co., Inc., Manhattan, ———, 336 bls. paper stock.

OLD ROPE

Chase National Bank, Montreal City, Bristol, 103 coils.

CHINA CLAY

———, Georgic, Liverpool, 25 cks.

CASEIN

D. C. Andrews & Co., Hamburg, Hamburg, 50 bags.

WOOD PULP

Price & Pierce, Ltd., Minnequa, Wallvik, 625 bls. mechanical, 125 tons; ———, Minnequa, Hernosand, 600 bls. sulphite, 100 tons; Price & Pierce, Ltd., Minnequa, Hernosand, 450 bls. sulphite, 75 tons; Price & Pierce, Ltd., Minnequa, Hernosand, 1500 bls. sulphate, 250 tons; Price & Pierce, Ltd., Minnequa, Skelleftea, 630 bls. chemical,

105 tons; Pagel Horton & Co., Inc., Minnequa, Ornskoldsvik, 1528 bls. sulphite, 250 tons; Pagel Horton & Co., Inc., Minnequa, Ornskoldsvik, 918 bls. chemical, 150 tons; Irving Trust Co., Fred. VIII, Oslo, 25 bls. chemical; Perkins Goodwin & Co., Malmen, Sundsvall, 450 bls. sulphate; Perkins Goodwin & Co., Malmen, Sundsvall, 300 bls. sulphite; Stora Kopparberg Corp., Malmen, Skutskar, 1000 bls. wood pulp; Pagel Horton & Co., Inc., Malmen, Gefle, 750 bls. sulphite; Perkins Goodwin & Co., Scanyork, Gdynia, 700 bls. wood pulp, 107 tons; Lageloef Trading Co., Scanyork, Wiborg, 8196 bls. sulphite, 1608 tons; Bulkley Dunton & Co., Sparreholm, ———, 6200 bls. wood pulp; J. Andersen & Co., Sparreholm, Sprangsviken, 3510 bls. sulphate; Johaneson Wales & Sparre, Inc., Sparreholm, Frano, 916 bls. sulphate; Johaneson Wales & Sparre, Inc., Sparreholm, Kramfors, 600 bls. sulphite; Johaneson Wales & Sparre, Inc., Sparreholm, Soraker, 1775 bls. sulphite; Johaneson Wales & Sparre, Inc., Sparreholm, Ostrand, 600 bls. sulphate; Johaneson Wales & Sparre, Inc., Sparreholm, Essvik, 150 bls. sulphite Johaneson Wales & Sparre, Inc., Sparreholm, Essvik, 400 bls. chemical; Bank of N. Y. Trust Co., Hamburg, Hamburg, 560 bls. wood pulp, 112 tons.

PULPWOOD

Polarus Shipping Co., Kalimba, Newcastle, N. B., 2600 cords; Polarus Shipping Co., Solhavn, Soldiers Cove, N. S., 1020 cords.

WOOD PULP BOARDS

Lagerloef Trading Co., Manhattan, Hamburg, 117 bls.

ALBANY IMPORTS

WEEK ENDING AUGUST 11, 1934

Chemical Bank Trust Co., Simon von Utrecht, Hernosand, 7002 bls. sulphate, 1167 tons; ———, Simon von Utrecht, Soderham, 1500 bls. sulphite, 300 tons; Chemical Bank Trust Co., Simon von Utrecht, Soderham, 6670 bls. sulphate, 1334 tons; Perkins Goodwin & Co., Simon von Utrecht, Sundsvall, 4002 bls. sulphite, 667 tons; Johaneson Wales & Sparre, Inc., Simon von Utrecht, Sundsvall, 1525 bls. sulphite, 280 tons; Johaneson Wales & Sparre, Inc., Simon von Utrecht, Sundsvall, 250 bls. chemical, 50 tons; Mead Sales Co., Inc., Simon von Utrecht, Sundsvall, 125 bls. chemical, 25 tons; Bulkley Dunton & Co., Simon von Utrecht, ———, 9600 bls. wood pulp, 1600 tons; Price & Pierce, Ltd., Malmen, Utansjo, 3000 bls. sulphite; J. Andersen & Co., Malmen, Utansjo, 300 bls. sulphite; Perkins Goodwin & Co., Malmen, Sundsvall, 600 bls. sulphite; ———, Malmen, Sundsvall, 450 bls. sulphite; Pagel Horton & Co., Inc., Malmen, Gefle, 8750 bls. sulphite.

BOSTON IMPORTS

WEEK ENDING AUGUST 11, 1934

G. F. Malcolm, Inc., Georgic, Liverpool, 18 cs. tissue paper; F. S. Webster & Co., Inc., Georgic, Liverpool, 6 cs. tissue paper; Perkins Goodwin & Co., Malmen, Sundsvall, 2250 bls. sulphate; Perkins Goodwin & Co., Malmen, Sundsvall, 660 bls. sulphite; Perkins Goodwin & Co., Malmen, Norrsundet, 125 bls. sulphate; Tradesmans Natl Bank Trust Co., Malmen, Norrsundet, 2750 bls. sulphate; Stora Koppaerberg Corp., Malmen, Skutskar, 1238 bls. wood pulp; ———, Malmen, Gefle, 125 bls. sulphite; Price & Pierce, Ltd., Malmen, Utansjo, 600 bls. sulphite; Price & Pierce, Ltd., Malmen, Wallvik, 1800 bls. sulphite; Price & Pierce, Ltd., Malmen, Wallvik, 250 bls. mechanical; Bulkley Dunton & Co., Malmen, ———, 1375 bls. wood pulp; E. J. Keller Co., Inc., Wido, ———, 337 bls. paper stock; Parsons & Whittemore, Inc., Wido, ———, 625 bls. sulphite; Gottesman & Co., Inc., Malaren, Sweden, 1800 bls. wood pulp.

PORTLAND IMPORTS

WEEK ENDING AUGUST 11, 1934

M. Sone, Malaren, Gothenburg, 280 bls. wood pulp; Gottesman & Co., Inc., Malaren, Sweden, 5150 bls. wood pulp; Gottesman & Co., Inc., Etna, Sweden, 7175 bls. wood pulp.

PHILADELPHIA IMPORTS

WEEK ENDING AUGUST 11, 1934

———, Montreal City, Bristol, 2675 tons, 17 cwt. china clay; Price & Pierce, Ltd., Minnequa, Wallvik, 250 bls. mechanical pulp, 25 tons; ———, Minnequa, Hernosand, 150 bls. sulphite, 25 tons; E. M. Sergeant & Co., Minnequa, Hernosand, 1500 bls. sulphite, 250 tons; Price & Pierce, Ltd., Minnequa, Skelleftea, 600 bls. chemical, 100 tons; Castle & Overton, Inc., Uruguayo, B. Ayres, 76 bls. rags; Lagerloef Trading Co., Scanyork, Wiborg, 4518 bls. sulphite, 833 tons; A. W. Fenton, Inc., Artigas, Dublin, 124 bls. paper stock; E. J. Keller Co., Inc., Artigas, ———, 27 bls. rags; Gottesman & Co., Inc., Sparreholm, Sweden, 2145 bls. wood pulp.

WILMINGTON IMPORTS

WEEK ENDING AUGUST 11, 1934

Price & Pierce, Ltd., Minnequa, Orviken, 3600 bls. chemical pulp, 600 tons; ———, Minnequa, Kopmanholman, 1530 bls. chemical, 250 tons.

BALTIMORE IMPORTS

WEEK ENDING AUGUST 11, 1934

Congoleum Nairn Co., Indep. Hall, Bordeaux, 539 bls. rags; ———, Simon von Utrecht, Hernosand, 2130 bls. sulphate, 355 tons; ———, Simon von Utrecht, Hernosand, 1290 bls. sulphite, 215 tons; ———, Simon von Utrecht, Soderham, 1125 bls. sulphate, 225 tons; Perkins Goodwin & Co., Simon von Utrecht, Sundsvall, 1020 bls. sulphate, 170 tons; Johaneson Wales & Sparre, Inc., Simon von Utrecht, Sundsvall, 1900 bls. sulphite, 350 tons; Mead Sales Co., Inc., Simon von Utrecht, Sundsvall, 5064 bls. sulphite, 844 tons; Parsons & Whittemore, Inc., Simon von Utrecht, Sundsvall, 228 rolls newsprint, Bulkley Dunton & Co., Simon von Utrecht, ———, 2125 bls. wood pulp, 425 tons; Parsons & Whittemore, Inc., Malaren, ———, 125 bls. sulphite; Parsons & Whittemore, Inc., C. of Newport News, ———, 150 bls. sulphite; Gottesman & Co., Inc., Malaren, Sweden, 1750 bls. wood pulp.

NEWPORT NEWS IMPORTS

WEEK ENDING AUGUST 11, 1934

Chase National Bank, Malmen, Karlsborg, 5000 bls. chemical pulp.

W. W. Pickard to Address Paper Salesmen

W. W. Pickard, Co-Ordinator for the paper and pulp industries, and formerly Deputy Administrator of the N. R. A., is scheduled to give an informal address at the meeting and luncheon of the Eastern Division of the Salesmen's Association of the Paper Industry, which will take place next Monday, August 20, in the Tavern Room of the Hotel Commodore, New York.

New York Market Review

Office of the PAPER TRADE JOURNAL,
Wednesday, August 15, 1934.

Conditions in the local paper market are fairly satisfactory. Although the prevailing demand for the various standard grades of paper is seasonally listless, the outlook for the closing months of the year is considered bright, in most quarters. Sales forces of the leading paper organizations are preparing for a strenuous Autumn campaign with enthusiasm.

The newsprint paper market is practically marking time at present. Manufacturing operations in the United States, Canada and Newfoundland are being maintained in sufficient volume to take care of current requirements. Advertising volume and circulations are still running ahead of the preceding year's record. Prices remain unchanged.

Demand for the various grades of fine paper is moderately active. Prices are holding to schedule. Tissues are moving into consumption in normal volume for the season. The coarse paper market continues steady and kraft specialties are in excellent request. The paper board market is displaying signs of improvement.

Mechanical Pulp

The ground wood pulp market is easier and prices have declined. No. 1 imported moist and dry mechanical pulp are now quoted at from $25 to $27 per ton, on dock, Atlantic ports. No. 1 domestic and Canadian ground wood pulp is selling at from $22 to $26 per ton, f.o.b. mill.

Chemical Pulp

Steadiness prevails in the chemical pulp market. Demand for both domestic and imported grades is only fairly active, due to seasonal causes, but inquiries for future account are frequent leading close observers to predict livelier trading in the near future. Prices are holding to previously quoted levels, without difficulty.

Old Rope and Bagging

The old rope market is exhibiting a stronger undertone. Demand for domestic and foreign old manila rope is slightly better. Small mixed rope is moving in moderate volume. Prices are steady. The bagging market is irregular. Gunny bagging is in greater request. Scrap bagging continues dull. Roofing bagging is fairly active.

Rags

Some improvement transpired in the domestic rag market. Affected by the rise of raw cotton prices, new cotton rags are attracting more interest from the paper mills. Export demand for several of the grades is also improving slightly. Roofing grades are moving more freely. The position of the imported rag market is practically unchanged.

Waste Paper

Minimum prices are expected to be established in the paper stock market shortly, following the action of General Johnson in declaring a State of Emergency to exist in the waste paper trade. Board mill demand for the lower grades is more in evidence, with offerings limited, quotations are decidedly firmer. The better grades of paper stock are steady.

Twine

Business in the local twine market is moderately active. Supplies are moving into consumption in fairly good volume for the time of year. More active conditions are looked forward to in the near future, now that the midsummer holidays are drawing to a close. Prices are holding to schedule, in most instances.

New Kellogg Ketch Launched

The *Roon II*, an auxiliary cruising ketch built for R. S. Kellogg, secretary of the News Print Service Bureau, was launched on Tuesday morning, August 7, at City Island, N. Y. The ceremony was attended by a large delegation of friends, including many identified with the paper industry. Janet R. Kellogg, wife of Skipper Kellogg, and the charming first mate of the new vessel, christened the ketch by breaking the proverbial champagne bottle over the prow as the vessel slid gracefully into the Sound.

The *Roon II* is 38½ feet long over all with 11′ 4″ beam. The wood used in the ketch includes teak for the deck and cabin, Philippine mahogany for the planking and interior finish, white oak for the keel, stern, rudder and other parts, white cedar for the ceiling and cabin top as well as mahogany oak and long-leaf pine. The mainmast is forty-five feet high and the mizzen mast thirty feet high, made of Douglas fir, with a Sitza spruce top on the mainmast.

The vessel has a main mizzen, forestaysail and jib, giving her almost seven hundred square feet of sail area. There is an auxiliary engine and storage facilities for one hundred gallons of water and one hundred gallons of gas. Everything is shipshape and in the compact area below deck are sleeping accommodations for five people, or for six if necessary.

Hammermill Agents to Meet Aug. 21-22

The twenty-third annual conference of the Hammermill Paper Company Agents will be held in Erie this year on Tuesday and Wednesday, August 21 and 22. The recreational and social activities will be held on Wednesday afternoon following the business session of Wednesday morning.

F. S. Janes Submits Name of Shartle

The gentleman who submitted the name of "Shartle," which was one of the winning names in the recent contest for a name for the new Refiner of the Shartle Brothers Machine Company, was F. S. Janes of the Pond's Extract Company, and not F. S. James, as was printed on page 10 of the August 2 issue of the PAPER TRADE JOURNAL.

Miscellaneous Markets

Office of the PAPER TRADE JOURNAL,
Wednesday, August 15, 1934.

BLANC FIXE.—The position of the blanc fixe market is practically unchanged. Prices are holding to schedule. The pulp is quoted at from $42.50 to $45 per ton, in bulk; while the powder is selling at from 3½ to 3¾ cents per pound, in barrels, at works.

BLEACHING POWDER. — Demand for bleaching powder is only moderately active. Shipments against contract are moving in fair volume. Prices remain steady and unchanged. Bleaching powder is quoted at from $1.90 to $2.15 per 100 pounds, in drums, at works.

CASEIN.—The casein market is marking time. Domestic standard ground is still quoted at 12¼ cents and finely ground at 12¾ cents, all in bags, car lot quantities. Offerings of Argentine standard ground and finely ground are scarce and prices are nominal.

CAUSTIC SODA.—Steadiness prevails in the caustic soda market. The contract movement is average. Solid caustic soda is quoted at from $2.60 to $3.10; while the flake and ground are selling at from $3 to $3.05 per 100 pounds, in large drums, at works.

CHINA CLAY.—The china clay market is fairly active. Contract shipments are moving regularly. Imported china clay is still quoted at from $13.50 to $21 per ton, ship side; while domestic paper-making clay is selling at from $5 to $12 per ton, at works.

CHLORINE.—Conditions in the chlorine market are satisfactory. Demand is better than seasonal and prices are steady to firm. Chlorine is quoted at from $2 to $2.25 per 100 pounds, in tanks, or multi-unit cars, in ton lots, or over, at works.

ROSIN.—The rosin market is slightly easier. Paper making gum rosin is now quoted at from $5.30 to $5.45 per 280 pounds, in barrels, at works; wood rosin at $4.20 per 280 pounds, in barrels, and rosin wax size at 5 cents per pound, at shipping points.

SALT CAKE.—Supplies of salt cake are going forward to the paper mills in good volume. Salt cake is quoted at from $12 to $14, and chrome salt cake at from $12 to $12.50 per ton, at works. Imported salt cake is selling at from $12 to $12.50 per ton, on dock.

SODA ASH.—The soda ash market is exhibiting a strong undertone. While demand is restricted, prices continue steady to firm. Quotations on soda ash, in car lots, at works, per 100 pounds, are as follows: in bulk, $1.10; in bags, $1.40; and in barrels, $1.50.

STARCH.—Affected by the increased strength of the basic product, the starch market continues firm. The contract movement is normal. Special paper-making starch is now quoted at $3.57 per 100 pounds, in bags; and at $3.84 per 100 pounds, in barrels, at works.

SULPHATE OF ALUMINA.—The sulphate of alumina market is displaying strength. Prices are holding to schedule. Commercial grades are quoted at from $1.35 to $1.50; while iron free is selling at from $1.90 to $2.05 per 100 pounds, in barrels, at works.

SULPHUR.—The sulphur market continues steady. Sulphur is quoted at $18 per long ton on orders of 1,000 tons, or over, on yearly contracts; and at $20 per ton on any smaller quantity over that period. On spot and nearby car loads, the quotation is $21 per ton.

TALC.—Paper mill demand for talc is rather listless at present, due mainly to seasonal causes. Prices are steady. Domestic talc is quoted at from $16 to $18 per ton, in bulk, at eastern mines; while imported talc is selling at from $23 to $30 per ton, on dock.

Market Quotations

Paper

(F. o. b. Mill)

Ledgers	6.50	@	—
Bonds	6.00	@	—
Index	6.00	@	—
Writings—			
Extra Superfine	6.50	@	—
Superfine	6.25	@	—
Tub sized	5.75	@	—
Engine sized	5.50	@	—
Book, Cased—			
S. & S. C.	5.35	@	5.75
S. & S. C. Litho.	5.60	@	6.00
M. F.	5.10	@	5.50
Coated and Enamel	5.90	@	6.55
Coated Litho	5.90	@	6.55
Tissues—Per Ream—			
White No. 1	.82½	@	.85
White No. 2	.67½	@	—
Anti-Tarnish M. G. only	1.00	@	—
Colored	.85	@	—
Kraft	.70	@	—
Manila	.67½	@	.70
Manila—			
No. 1 Jute	9.00	@	9.25
No. 2 Jute	7.75	@	8.50
No. 1 Wood	4.00	@	5.25
No. 2 Wood	3.50	@	4.00
Butchers	4.00	@	4.50
Fibre Papers—			
No. 1 Fibre	4.25	@	5.50
No. 2 Fibre	4.00	@	4.75
Common Bogus	1.50	@	3.00
Screenings	2.50	@	3.50
Glassine—			
Bleached	.11	@	—
Unbleached	.09	@	—

(The following Quotations are Delivered New York)

News, per ton—			
Roll, contract	40.00	@	—
Rolls, spot	40.00	@	—
Sheets	45.00	@	—
Kraft—			
No. 1 Domestic	4.75	@	5.00
No. 2 Domestic	3.87½	@	—
Southern	3.87½	@	—
Boards—per ton—			
News	40.00	@	45.00
Chip	37.50	@	40.00
Egl. Mla. Ll. Chip	47.50	@	52.00
Jute Lined Chip	47.50	@	52.00
White Patent Coated	57.50	@	65.00
Binders Boards	67.00	@	75.00

Mechanical Pulp

(On Dock, Atlantic Ports)

No. 1 Imported—			
Moist	25.00	@	27.00
Dry	25.00	@	27.00

(F.o.b. Mill)

No. 1 Domestic and Canadian	22.00	@	26.00

Chemical Pulp

(On Dock, Atlantic, Gulf and West Coast Ports)

Bleached Sulphite (Domestic and Foreign)—			
Division 1	2.85	@	—*
Division 2	2.80	@	—*
Division 3	2.75	@	—*
Prime Qualities—			
Class 1. All Prime Easy Bleaching	2.25	@	—*
Other Than Easy Bleaching—			
Class 2. Higher Than Standard	2.20	@	—*
Class 3. Standard	2.15	@	—*
Class 4. Lower than Standard	2.10	@	—

(On Dock, Atlantic Ports)

Kraft No. 1	1.85	@	1.90
Kraft No. 2	1.60	@	1.70

(F.o.b. Pulp Mill)

Kraft Domestic	1.60	@	2.75

(Delivered)

Soda Bleached	2.50	@	—

*Add 60 Cents per short ton, dock charges, for Albany; $2.00 for Lake Ports East and $3.00 for Lake Ports West of Mackinac Straits.

Domestic Rags

New Rags

(Prices to Mill f. o. b. N. Y.)

Shirt Cuttings—			
New White, No. 1.	6.50	@	7.00
Silesias No. 1	4.25	@	4.50
New Unbleached	6.75	@	7.25
New Soft Blacks	3.00	@	3.25
Blue Overall	4.00	@	4.25
Fancy	2.50	@	2.75
Washables	1.75	@	2.00
Mixed Khaki Cuttings	3.00	@	3.25
O. D. Khaki Cuttings	3.75	@	4.00
Men's Corduroy	1.50	@	1.75
New Mixed Blacks	2.50	@	2.75

Old Rags

White, No. 1—			
Repacked	3.00	@	3.50
Miscellaneous	2.75	@	3.25
White, No. 2—			
Repacked	1.75	@	2.25
Miscellaneous	1.50	@	1.75
Thirds and Blues—			
Repacked	1.50	@	1.75
Miscellaneous	1.25	@	1.50
Black Stockings	2.50	@	3.00
Roofing Rags—			
No. 1	1.10	@	1.25
No. 2	.80	@	.85
No. 3	.70	@	.75
No. 4	.65	@	.70
No. 5A	.60	@	.65

Foreign Rags

New Rags

New Dark Cuttings	1.60	@	1.70
New Mixed Cuttings	1.75	@	1.85
New Light Silesias	3.75	@	4.00
Light Flannelettes	3.75	@	4.00
Unbleached Cuttings	6.50	@	6.75
New White Cuttings	6.50	@	6.75
New Light Oxfords	3.25	@	3.50
New Light Prints	2.75	@	3.00

Old Rags

No. 1 White Linens	7.50	@	8.00
No. 2 White Linens	6.50	@	7.00
No. 3 White Linens	4.50	@	5.00
No. 4 White Linens	2.25	@	2.50
No. 1 White Cotton	4.25	@	4.75
No. 2 White Cotton	3.25	@	3.75
No. 3 White Cotton	2.50	@	2.75
No. 4 White Cotton	1.90	@	2.15
Extra Light Prints	2.00	@	2.25
Ord. Light Prints	1.75	@	1.85
Med. Light Prints	1.55	@	1.65
Dutch Blue Cottons	1.75	@	1.85
French Blue Linens	2.30	@	2.40
German Blue Linens	2.15	@	2.25
German Blue Cottons	1.70	@	1.80
Checks and Blues	1.30	@	1.40
Linsey Garments	1.40	@	1.60
Dark Cottons	1.00	@	1.10
Old Shopperies	.95	@	1.00
New Shopperies	.90	@	1.00
French Blues	1.70	@	1.80

Old Rope and Bagging

(Prices to Mill f. o. b. N. Y.)

Gunny No. 1—			
Foreign	1.50	@	1.60
Domestic	1.40	@	1.50
Wool Tares, light	1.20	@	1.30
Wool Tares, heavy	1.20	@	1.30
Bright Bagging	1.15	@	1.25
Manila Rope—			
Foreign	2.35	@	2.45
Domestic	2.25	@	2.50
Small Mixed Rope	1.10	@	1.35
New Burlap Cut	2.00	@	2.25
Hessian Jute Threads—			
Foreign	2.60	@	2.75
Domestic	2.80	@	3.00

Old Waste Papers

(F. o. b. New York)

Shavings—			
White Envelope Cuttings	2.70	@	2.80
Ordinary Hard White No. 1	2.15	@	2.25
Hard White No. 2.	1.95	@	2.05
Soft White No. 1.	1.85	@	1.95
Flat Stock—			
Stitchless	.80	@	.90
Over issue Mag.	.80	@	.90
Solid Flat Book	.65	@	.75
Crumpled No. 1	.60	@	.65
Solid Book Ledger	1.50	@	1.65
Ledger Stock	1.00	@	1.10
New B. B. Chips	.30	@	.35
Manilas—			
New Env. Cut	1.70	@	1.80
New Cuttings	1.35	@	1.45
Print	Nominal		
Bogus Wrapper	.40	@	.50
Container	Nominal		
Old Kraft Machine—			
Compressed bales	1.10	@	1.20
News—			
No. 1 White News	1.10	@	1.20
Strictly Overissue	.65	@	.70
Strictly Folded	.35	@	.45
No. 1 Mixed Paper	.20	@	.25

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Söderhamn, Sweden
CELLULOSEFABRIKS A-G.
Bratislava, Czecho-Slovakia
SVANÖ AKTIEBOLAG
Svanö, Sweden

Twines

(F. o. b. Mill)

Cotton—			
B. C. 18 basis	.30	@	.32
No. 1	.20	@	.22
No. 2	.19	@	.20
No. 3	.17	@	.18
A. Italian, 18 basis	.36	@	.37
Finished Jute—			
Dark, 18 basis	.18	@	.20
Light, 18 basis	.20	@	.22
Jute Wrapping, 3-6 Ply—			
No. 1	.15½	@	.16½
No. 2	.15	@	.16
Tube Rope—			
4-ply and larger	.09¼	@	.09¾
Fine Tube Rope—			
4-ply	.11¼	@	.11¾
3-ply	.14¼	@	.14¾
2-ply	.14¼	@	.14¾
Paper Makers Twine	.08¼	@	.13¼
Box Twine, 2-3 ply	.14¼	@	.14¾
White Hemp	.13¼	@	.16¾
Java Sisal—			
No. 1 Basis	.11½	@	—
No. 2 Basis	.10½	@	—
New Zealand Sisal	.11½	@	—
Sisal Lath Yarn—			
No. 1	.13½	@	.15½
No. 2	.11½	@	.13½
Manila Twine	.24½	@	.29½

CHICAGO

Paper

(F. o. b. Mill)

Rag Bond	.12	@	.50
Water Marked Sulphite Bond	.06¾	@	.11
Sulphite Bond	.05½	@	.11
Superfine Writing	.18	@	.24
No. 1 M. F. Book	.06½	@	.07¾
No. 2 M. F. Book	.05¼	@	.06¾
No. 1 S.&S.C. Book	.06¾	@	.07¾
No. 2 S.&S.C. Book	.05¾	@	.06½
Coated Book	.07	@	.12
Coated Label	.07	@	.08½
No. 1 Manila	.04¼	@	.05¾
No. 1 Fibre	.04¾	@	.05¾
No. 2 Manila	.04¼	@	.04¾
Butcher's Manila	.03¼	@	.03¾
No. 1 Kraft	4.75	@	5.00
Southern Kraft	3.88	@	4.25
No. 2 Kraft	3.88	@	4.25
Wood Tag Boards	.04¼	@	.05¾
Sulphite Screenings	.03	@	.03½
Manila Tissue	.05¾	@	.07
White Tissue	.07	@	.09

(Delivered Central Territory)

News, per ton—			
Rolls, contract	41.00	@	—
Sheets, open	46.00	@	51.00
Boards, per ton—			
Plain Chip	46.50	@	—
Solid News	50.00	@	—
Manila Lined Chip	55.00	@	—
Patent coated	65.00	@	—
Container Lined—			
85 Test, per 1000 sq. ft.			1.70
100 Test, per 1000 sq. ft.			1.85

Old Papers

(F. o. b. Chicago)

Shavings—			
No. 1 White Envelope cuttings	1.70	@	2.00
No. 1 Hard White	1.40	@	1.65
No. 1 Soft White	1.25	@	1.50
Ledger & Writings	.70	@	.80
Solid Books	.60	@	.70
Blanks	1.00	@	1.05
Kraffts	.80	@	.90
New Kraft Cuts	1.20	@	1.30
Manila Env. Cuts	1.25	@	1.30
Ex. No. 1 Manila	.90	@	1.00
Print Manila	.50	@	.55
Overissue News	.60	@	.70
Old Newspapers—			
No. 1	.50	@	.55
Mixed Papers—			
No. 1	.30	@	.35
Roofing Stocks—			
No. 1	30.00	@	—
No. 2	28.00	@	—

PHILADELPHIA

Paper

(Delivered Philadelphia)

Bonds	.05-9/10	@	.38
Ledgers	.06 9/10	@	.40
Writings—			
Superfine	.10	@	.18
Extra Fine	.15	@	.24
Fine	.15	@	.26
Fine No. 2	.10	@	.25
Fine No. 3	.05	@	.06
Book, M. F.	.05¼	@	.06¾
Book, S. S. & C.	.05	@	.07½
Book, Coated	.06½	@	.09
Coated Lithograph	.06¾	@	.08½
Label	.07	@	.11
No. 1 Jute Manila	6.25	@	—
Manila Sul., No. 1	5.25	@	—
Manila No. 2	3.00	@	—
No. 1 Kraft	5.00	@	—
Southern Kraft	4.75	@	—
Common Bogus	.03	@	.04½
News Print Rolls	46.00	@	55.00
Straw Board	40.00	@	45.00
News Board	50.00	@	—
Chip Board	45.00	@	—
Wood Pulp Board	70.00	@	85.00
Binder Boards—			
No. 1, per ton	75.00	@	80.00
No. 2, per ton	70.00	@	75.00
Carload lots	65.00	@	70.00
Tarred Felts—			
Regular	52.25	@	54.25
Slaters (per roll)	.84	@	.94
Best Tarred, 1-ply (per roll)	1.95	@	2.10
Best Tarred, 2-ply (per roll)	1.50	@	1.60
Best Tarred, 3-ply	2.00	@	2.21

Domestic Rags (New)

(Price to Mill, f. o. b. Phila.)

Shirt Cuttings—			
New White, No. 1	.03½	@	.04
New White, No. 2	.02½	@	.04
Light Silesias	.02½	@	.03
Silesias, No. 1	.03	@	.03½
Black Silesias, soft	.02½	@	.03
New Unbleached	.05	@	05½
Washable, No. 1	.01½	@	.02
Blue Overall	.03½	@	.04
Cottons—According to grades—			
Washable, No. 2	.02½	@	.03
New Blue	.01½	@	.03
Fancy	.01½	@	.03
New Black Soft	.02	@	.04
New Light Seconds	.01½	@	.02
New Dark Seconds	1.50	@	1.75
Khaki Cuttings—			
No. 1 O.D.	.03	@	.04
No. 2 Mixed	.03	@	.04
Corduroy	.02	@	.03
New Canvas	.03½	@	.04½
New Black Mixed	.02½	@	.03½

Domestic Rags (Old)

White No. 1—			
Repacked	2.50	@	3.50
Miscellaneous	1.75	@	2.25
M. G.	3.00	@	3.75
Fairds and Blues—			
Miscellaneous	1.00	@	1.50
Repacked	1.50	@	2.00
Black Stockings (Export)	2.00	@	3.50
Roofing Stock—			
Foreign No. 1	.50	@	.75
Repacked	.70	@	.85

Bagging

(F. o. b. Phila.)

Gunny, No. 1—			
Foreign	1.25	@	1.50
Domestic	1.50	@	1.75
Manila Rope	2.00	@	2.25
Sisal Rope	1.25	@	1.50
Mixed Rope	1.00	@	1.10
Scrap Burlaps—			
No. 1	1.25	@	1.50
No. 2	.80	@	1.00
Wool Tares, heavy	2.75	@	—
Mixed Strings	1.15	@	1.25
No. 1 New Light Burlap	2.25	@	2.50
New Burlap Cuttings	2.00	@	2.25

Old Papers

(F. o. b. Phila.)

Shavings—			
No. 1 Hard White	2.25	@	2.30
No. 2 Hard White	1.90	@	2.00
No. 1 Soft White	1.80	@	1.85
No. 2 Soft White	1.25	@	1.50
No. 1 Mixed	—	@	.75
No. 2 Mixed	—	@	.50
Solid Ledger Stock	1.50	@	1.60
Writing Paper	1.10	@	1.20
No. 1 Books, heavy	—	@	.70
No. 2 Books, light	—	@	.50
No. 1 New Manila	—	@	1.40
No. 1 Old Manila	—	@	.70
Print Manila	—	@	.60
Container Manila	—	@	.50
Old Kraft	1.00	@	1.10
Common Paper	—	@	.20
No. 1 Mixed Paper	—	@	.25
Straw Board Chip	—	@	.30
Binders Board Chip	—	@	.30
Corrugated Board	—	@	.50
Overissue News	—	@	.50
Old Newspapers	—	@	.30

BOSTON

Paper

(F. o. b. Mill)

Leagers—			
Sulphite	.06	@	.12½
Rag Content	.12	@	.30
All Rag	.36	@	.52½
Bonds—			
Sulphite	.07¼	@	.11
Rag Content	.12	@	.40
All Rag	.36	@	.65
Writings	.06½	@	.20
Superfines	.11	@	.31
Book, Super	.06	@	.09
Book, M. F.	.05½	@	.08½
Book, Coated	.08½	@	.18
Coated Litho	.09	@	.12
Label	.09½	@	.15
Jute Manila No. 1	.11	@	.13
Manila, Sul. No. 1	.04¼	@	.06½
Manila, Sul. No. 2	.03¾	@	.04½
No. 1 Kraft	.04¾	@	.05
No. 2 Kraft	.03½	@	.04¾
(F. o. b. Boston)			
Southern Kraft	.03½	@	.04¾
(F. o. b. destination in carload lots, f. o. b. mill in less than carload lots.)			
Common Bogus	.02	@	.02¼
(Delivered New England points)			
News Print, rolls	44.50	@	—
Straw Board, rolls	.009	@	35.00
Straw Board in Sheets, basis 35s to 70s	—	@	40.00
Filled News Board	40.00	@	45.00
Chip Board	37.50	@	40.00
Chip Board (Creasing)	37.50	@	40.00
Single Manila Lined Chip	47.50	@	52.50
Single White, Patent Coated News Board (Bender)	57.50	@	65.00
Wood Pulp Board	70.00	@	75.00
Binder Boards (Standard Grade)	67.00	@	75.00

Old Papers

(F. o. b. Boston)

Shavings—			
No. 1 Hard White	2.20	@	2.35
No. 1 Soft White	1.75	@	2.00
No. 2 Mixed	.75	@	.80
Solid Ledger Books	1.75	@	—
Overissue Ledger Stock	1.15	@	1.30
Mixed Ledgers	.95	@	1.05
No. 1 Books, heavy	.85	@	.95
No. 1 Books, light	.65	@	.75
Crumpled Stitchless Book Stock	.50	@	.60
Manila Env. Cuttings	1.25	@	1.30
No. 1 Old Manila	.75	@	.80
White Blank News	.95	@	1.05
No. 1 Kraft	.22	@	.23
Manila	.70	@	.75
No. 1 Mixed Papers	.15	@	.20
Print Manila	.40	@	.45
Overissue News	.45	@	.50
Old Newspapers	.35	@	.37½
Box Board Chips	.32½	@	.35
Corrugated Boxes	.32½	@	.35
Screening Wrappers	.50	@	.60

Bagging

(F. o. b. Boston)

Manila Rope—			
Foreign	2.00	@	2.12½
Domestic	2.25	@	2.37½
Transmission Rope	—	@	1.25
Mixed Strings	—	@	.30
Jute Rope	1.50	@	1.60
Jute Carpet Threads	.65	@	.70
Gunny No. 1—			
Foreign	1.50	@	1.60
Domestic	...	@	1.50
Bleachery Burlap	3.00	@	3.25
Scrap Burlap	1.15	@	1.20
Scrap Sisal	.90	@	1.10
Scrap Sisal for shredding	1.00	@	1.25
Wool Tares, heavy	1.25	@	1.30
New Burlap Cuttings	1.25	@	1.50
Australian Wool Pouches	2.25	@	2.50
Heavy Baling Bagging	1.40	@	1.50
Paper Mill Bagging	.90	@	1.10
Bagging No. 2	.50	@	.55

Domestic Rags (New)

(F. o. b. Boston)

Shirt Cuttings—			
New Light Prints	.01¾	@	.02
New White No. 1	.05½	@	.06
New White No. 2	.03½	@	.04
Silesias No. 1	.04	@	—
New Black Silesias	.02½	@	.03
New Unbleached	.05½	@	.06
Blue Cheviot	—	@	4.65
Fancy	—	@	.02½
Washable	.02¼	@	—
Cottons—According to grades—			
Blue Overalls	—	@	.03¾
New Black, soft	.04	@	.04½
Khaki Cuttings	.03	@	.03¼
O. D. Khaki	.02¾	@	.03
Corduroy	.01¾	@	.02
New Canvas	—	@	.05
B.V.D. Cuttings	—	@	.06¾

Domestic Rags (Old)

(F. o. b. Boston)

Canvas	.04½	@	—
White No. 1—			
Repacked	—	@	3.00
Miscellaneous	2.50	@	2.75
White No. 2—			
Repacked	2.00	@	2.75
Miscellaneous	2.00	@	2.25
Twos and Blues	1.25	@	1.50
Thirds and Blues			
Repacked	2.00	@	2.75
Miscellaneous	2.00	@	2.25
Black Stockings	2.25	@	2.50
Roofing Stock			
No. 1	.80	@	.85
No. 2	.65	@	.70
No. 3	.55	@	.60

Foreign Rags

(F. o. b. Boston)

Dark Cottons	.85	@	.95
New White Shirt Cuttings	5.50	@	6.00
Dutch Blues	2.00	@	2.50
New Checks & Blues	2.50	@	3.00
Old Fustians	1.55	@	1.60
Old Linsey Garments	1.25	@	1.35

TORONTO

Paper

(F. o. b. Mill)

Bond—			
No. 1 Sulphite	.10¾	@	—
No. 2 Sulphite	.08½	@	—
No. 1 Colored	.10¼	@	—
No. 2 Colored	.09	@	.10
Ledgers (sulphite)			
Ledgers, No. 1	.34½	@	—
Ledgers, No. 2	.25½	@	—
Writing	.09	@	.09½
Book—			
No. 1 M. F. (Carloads)	6.20	@	—
No. 3 M. F. (Carloads)	5.70	@	—
No. 4 M. F. (carloads)	4.75	@	—
No. 1 S. C. (carloads)	6.65	@	—
No. 3 S. C. (carloads)	6.20	@	—
No. 4 S. C. (carloads)	5.20	@	—
No. 1 Coated and Litho	12.00	@	—
No. 2 Coated and Litho	10.50	@	—
No. 3 Coated and Litho	9.50	@	—
Coated tinted	14.00	@	—
Wrapping—			
Rag Brown	4.25	@	—
White Wrap	2.22½	@	—
"B" Manila	4.75	@	—
No. 1 Manila	5.25	@	—
Fiber	5.25	@	—
Kraft, M. F.	5.75	@	—
Kraft No. 2	5.25	@	—

(F.O.B. Cars Toronto)

News, per ton—			
Rolls (contract)	45.50	@	—
Sheets	50.50	@	—

Pulp

(F. o. b. Mill)

Ground Wood	18.00	@	20.00
Sulphite easy bleaching	40.00	@	—
Sulphite, news grade	38.00	@	—
Sulphite, bleached	50.00	@	55.00
Sulphate	50.00	@	—

Old Waste Paper

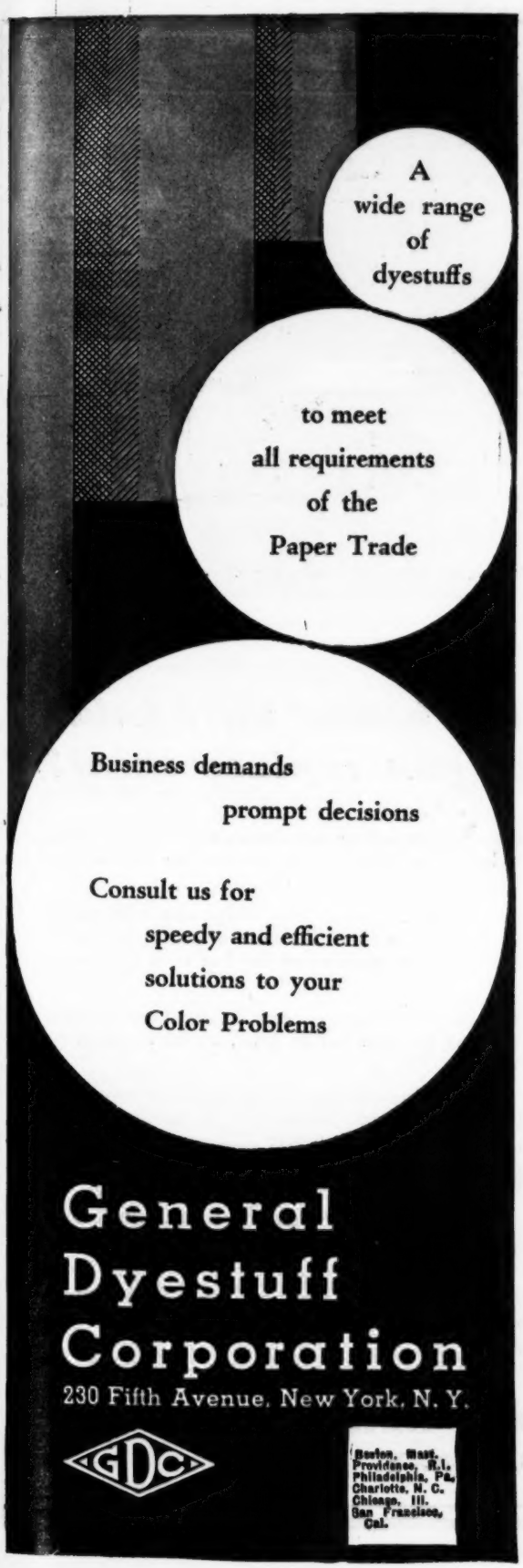
(In carload lots, f. o. b. Toronto)

Shavings—			
White Env. Cut	2.00	@	2.30
Soft White	1.60	@	1.90
White Blk. News	1.25	@	1.40
Book and Ledger—			
Flat Magazine and Book Stock (old)	.90	@	1.00
Light and Crumpled Book Stock	.80	@	.90
Ledgers and Writings	1.00	@	1.05
Manilas—			
New Manila Cut	1.25	@	1.50
Printed Manilas	.70	@	.60
Kraft	1.25	@	1.50
News and Scrap—			
Strictly Overissue	.80	@	—
Strictly Folded	.60	@	—
No. 1 Mixed Paper	.50	@	—

Domestic Rags

(Price to mills, f. o. b. Toronto)

No. 1 White Shirt Cuttings	.06	@	.06¼
Fancy Shirt Cuttings	.02¼	@	.02½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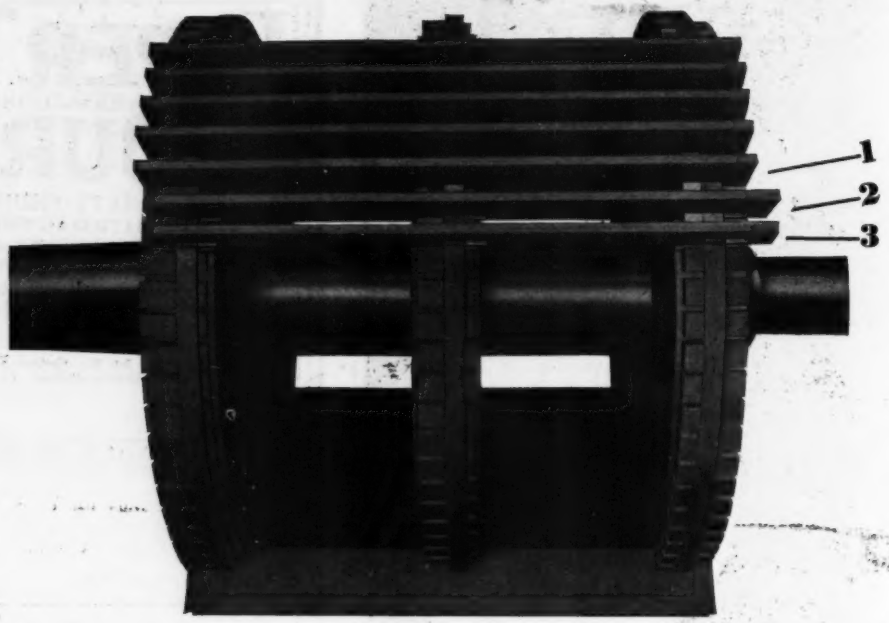

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